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ABSTRACT

Although this book is about how things work, it is also about flaws in the U.S. economic system. It is difficult to realize that every economic activity gravitates toward monopoly or rebellion against monopoly. This is the subject of the book, which is the result of 50 years of actual experience, informed observations, and trained readings. The book contains five sections: (1) Economic Model; (2) "Hydrology Model" (A Non-Monetary Example; Money and Transactions; and Attributes of Values); (3) "Organic Economics" (Income and Outgo; Nature of the Objective; Resources; Obvious vs. Important; Two Digressions; Mathematical Scissors; Percentages; Development of Demand; Interaction of the Blades; Some Results of the Mathematical Scissors; First Priority Objectives; Difference between First Priority and Lower Priority Objectives; Business and Coordination; Warehousing and Banking; Mechanics of Warehousing; Interdependency; Lower Foreign Wages; Economic Structures and Importance of the Economic Structure; Organisms and Nutrition; Some Economies That Worked; Dying Economies; Elements of Demand; Role of Priorities; Economic Structure; Ability to Warehouse; Sub-economics; Local Control; Effects of Structural Interdependency; Economies of Scale; Trash; Inevitable Monopoly--by Income, by Efficiency, by Subsidy, by Power, by Legality, by Positioning, by Deep Pockets, by Information); (4) "Economics as an Organism"; and (5) "Good Things about Monopoly". It states that sound economic structures make sound economics. Its conclusion proposes that a series of remedial actions be established to assure the soundness of the U.S. economy. (BT)

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DEMAND ECONOMICS
WHAT HAPPENS BEFORE THE SWAP

H. Doyle Smith

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The enclosed manuscript looks at economics from a different point of view. The financial circle, where I buy from you, you buy from another, and the process eventually has someone using the same money to buy from me, has two parts. These parts are the transaction, and the entity involved in the transaction. Using the transaction as the basis of study, supply and demand are the most important aspects of the study of economics. This paper looks at the entities that participate in the transaction. The difference created by this point of view develops an entirely different means of studying the matter.

This includes many definition changes. Money is not just a medium of exchange, but is also a benchmark for establishing value. The recent meltdown of the economy of Argentina can be explained by the inability of the US dollar to meet the needs of the Argentine people for that purpose. As a reference point for value, it needed to be accessible to the people of that country on a regular basis. Access to dollars is limited there and the flaws in using the dollar as a basis are similar to the flaws in the mercantile system that forced Virginians to buy stamps with specie that did not exist in the colony. This analysis of the cause of the American Revolution appears in this book.

Other changes appear in the book as well. Scarcity is replaced by objectives as the principle source of economic activity. Scarcity still applies, but only when objectives make it important. Supply and demand are replaced as the cardinal ruling principles by the different rule, "If your outgo exceeds your income your upkeep will be your downfall." Econometrics is lost as a tool because it relies on the laws of large numbers and this book deals with individual economic entities.

The most noticeable difference is the emphasis on the nature of the economic entity rather than the transaction. This change of emphasis does not eliminate any current economic thinking as this thinking is entirely valid from the other point of view.

Mechanics

This book is expected to be ready for publication in January of 2003. In the meantime, comments, recommendations and reviews are appreciated. It is in Microsoft word, and consists of a number of files, which when printed out run to 180 pages. Comments should be sent to H Doyle Smith, PO Box 9059, Canton, OH 44711-9059.

Please accept my appreciation for any advice, comments, recommendations reviews or other help you may give me in developing this manuscript.

Sincerely

H. Doyle Smith

Preface

A Word from the Author.

Things are frequently what they seem.
And this is fortune's frown.
While only the game fish swims upstream
The sensible fish swims down.
(Ogden Nash)

There is order in the world. Those who believe that the world works are right. The problem arises when people think more highly of themselves than they ought to think, (A phrase from the Biblical book of Romans – 12; 3 to be exact.) Such thinking leads people to believe that the world is as they want it to be and not as it really is. Such thinking overlooks many clues about how the world works and supposes that, even though we have only seen a small part of it, and we understand less, we are able to insist that it abide by our rules.

The author is an observer who has seen a great deal of the workings of the world, and has summarized the observations in this book. Certain principles have developed that tend to explain some of the results of his observations. These principles seem to work in many cases, but like all principles are capable of having exceptions, so this book is not the only explanation for phenomena that occur. Please use it as a reference of probabilities rather than an authority or rule of law.

Although the book is about how things work, it is also a book about flaws -- flaws in the American economic system. These flaws encourage drug use, eliminate vital functions, make prison a great place to be, and allow things to get out of balance and out of hand. It takes an understanding of drugs to understand why no user will turn in a pusher. It takes just such an understanding to realize why a person is better off in a prison than on his own resources. It is difficult to realize that every economic activity gravitates toward monopoly or rebellion against monopoly. These things are subject of this book.

There are those who say that the author is incapable of dealing with such a subject. As the author I am reminded of the admission office employee at Western Carolina University. When I applied for admission to their graduate program, she constantly and continually commented that I would have to pass the Graduate Record Examination to be admitted. When the secretary gave her the report of the grade (the highest in the school's history – at least at that time) she asked if she thought it was high enough. Here let it suffice it to say that I am qualified. Since the message is more important than the messenger, further discussion of my qualifications must wait for an epilog.

There are flaws in the system. No one can dispute that. Any system that exists has flaws. To identify them we need an understanding of how the system works. It is difficult for most people to understand how the whole economic system works because they are only exposed to small parts of it, and those parts limit them to knowledge of how their particular part works. Some of the best comments I have heard about the system, however, come from factory workers who described the difficulties they endured during the Carter Administration. It is possible for people to understand how the overall system works, especially where it applies to them, if they are exposed to the principles.

Those principles are not the principles of the academician. Academic studies from books are not comprehensive enough to cover all the possible combinations that exist in reality. Even a lifetime of study has not made everything apparent to me, but the exposure of fifty years experience has provided a far wider range of experience than a four year exposure in college would provide. For this reason my discussions, even though they have a basis in books, are far more influenced by actual observation

If the principles that underlie this book are not understood, the conclusions will seem to be absurd to some and idiotic to others, so the first part of the book will deal with what are often called "Academic matters." Don't let that scare you. Descriptions of the importance of the economic structure, the process by which economic decisions are made, the mathematical scissors, the inevitable monopoly, and several other concepts are probably better understood by individuals than they realize, even though the relationship of the income tax exemption for principle residence to homelessness will be a surprise. This income tax exemption has been a major cause of homelessness as will appear later.

This does not mean that such an exemption should be eliminated, but that other changes would make other businesses profitable once more. I am reminded of the leprechaun who was forced to reveal where he had hidden his gold. The Irishman marked the tree and made the leprechaun vow that he would not touch the mark or the tree. The leprechaun lived up to his vow, but made the same mark on every other tree. So it is with many conclusions of this book. Keep what is good, and make it better.

AMERICA, LOVE IT AND IMPROVE IT.

The book is a result of fifty years of actual experience, informed observations and trained readings. In the legal profession one basic legal principle is that the evidence used should be the "Best evidence." Despite normal preference for "authoritative statement," I find that "authorities" have only learned what they have been exposed to, limited their comments to what they consider important, used language that can cover only part of the experience, and allowed the reader to interpret what he wrote in accordance to his own language, ability, and preferences. For these reasons, the best evidence appears to be the actual experience, followed by informed observations. Only when readings correspond to the better evidence should they be given authoritative status.

An example of the practical application of this principle is the evidence that can be used in the civil suit by Blacks for restitution against slavery. All evidence available for judging this case is in some way the result of someone writing something down. The author who is involved is not there to be cross examined, and the writings could have been slanted in many ways without violating literary license. Unlike the treaties signed by Native Americans, there is no contract that can be interpreted. There is no guarantee that anything written about the institution of slavery is realistically representative of the actual conditions that existed. This lawsuit is going to be difficult to resolve.

During the last forty years, many concepts that I use here have been the result of reading other author's books. At times the best way to describe an idea is the way some author wrote, and I may have chosen the same words to incorporate the idea in this book. As a result, some ideas may sound like plagiarism. If an author wants credit for his idea, I will be glad to give it, if he can show me the source he claims I used. Be assured, however, that the book was not in front of me when I wrote. I have deliberately used other books only where passages were scanned into my computer (and credit given).

Because of the size of the book, there are probably repetitions. Sometimes the same words can describe two or more concepts. At other times repetition makes the book more readable. And I have been known to repeat a phrase just because it sounds good. The subject of this study is very important to me, and I hope it will be to you, but the smoothness that I would like to have in style is not nearly as important as the common sense that I have placed in the content. Moreover, I like to put something in my books for everyone, and some people enjoy looking for faults.

Because I have had to be exposed to so many different influences in being able to write this book, it is hard to recognize every person who has made it possible. Forty years is a long time and many of the influences have been significant without even being noticed at the time they happened. I am reminded of my sixth grade teacher who insisted I had the ability to learn easily. Twenty-five years later I remembered the conversation that made such a difference, and I thank Mrs. Roberts for that influence.

There are also individuals whose influence has been totally negative, but without their influence things that taught me concepts could not have happened. Since one should be silent about anyone if there is nothing good you can say about them, I will mentally thank them but not expose them to censure.

It is important to remember some of those whose contributions have made the book possible. Without the support and encouragement of my wife, Dolores Hill, there would have been no effort to record the results of fifty years of observation, study and organization.

Dedicated to my wife Dolores Hill

Demand Economics

What happens before the swap

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2002

The Blind Men and the Elephant

by John Godfrey Saxe

It was six men of Hindostan,
To learning much inclined,
Who went to see the elephant,
(Though all of them were blind);
That each by observation
Might satisfy his mind.

The first approached the elephant,
And happening to fall
Against his broad and sturdy side,
At once began to bawl,
"Bless me, it seems the elephant
Is very like a wall."

The second, feeling of his tusk,
Cried, "Ho! What have we here
So very round and smooth and
sharp?
To me 'tis mighty clear
This wonder of an elephant
Is very like a spear."

The third approached the animal,
And happening to take
The squirming trunk within his
hands,
Then boldly up and spake;
"I see," quoth he, "The elephant
Is very like a snake."

The fourth stretched out his eager hand
And felt about the knee,
"What most this mighty beast is like
Is mighty plain," quoth he;
"Tis clear enough the elephant
Is very like a tree.

The fifth, who chanced to touch the
ear
Said, "Even the blindest man
Can tell what this resembles most;
Deny the fact who can,
This marvel of an elephant
Is very like a fan."

The sixth no sooner had begun
About the beast to grope
Than, seizing on the swinging tail
That fell within his scope,
"I see," cried be, "the elephant
Is very like a rope."

And so these men of Hindostan
Disputed loud and long,
Each of his own opinion
Exceeding stiff and strong,
Though each was partly in the right,
And all were in the wrong!

The Economic Model

Economists try to understand the economic world by using models. These models look at the activities involved in economics as if they were some other process. Each model relates to some part of the economic structure of the world, but in studying each of these parts of the economic world they tend to limit themselves to just one part.

In order to make the model work they are required to assume many things. Such assumptions should normally be avoided. That "Assume" is spelled ass/u/me implies that assumptions make everyone look foolish. Unfortunately, nothing in economics can be understood without assumptions. They are by nature theories developed from data that can never be fully understood. If it were possible to have all the facts, there would be no need to make these assumptions. They are tested regularly (and are basically sound) within the scope of their interest, so economic models using assumptions are ordinarily useful. The very nature of the knowledge available, though, requires that studying them will give limited results.

Most economic models look at activity as a snapshot at a particular point. This point of view tries to stop the picture long enough to understand the situation as if the situation did not change. The problem is that in economics nothing is static; nothing stands still. The study of economics cannot be pursued if the student assumes that anything stays the same from day to day. The idea that any manufacturing process will remain useful over a period of time is one of the fallacies that cause people and businesses to fail financially and economically. Buggy whip manufacturers had a sure market at one time, and at race tracks they are still sold. With the invention and proliferation of automobiles, however, the maker of buggy whips has to know not only where and when buggy whips will be used, but in what quantity.

Economics is not just the study of the distribution of scarce items. That is one of the assumptions that many economists make in their models. A quick practical look at the economic world, however, will tell you that scarcity has little to do with value. Plutonium and selenium are scarce commodities, and if scarcity was the controlling factor, people would be spending a great deal of money to acquire them. Instead, they demand much economic activity to dispose of them. Scarcity applies only as a limitation where a good or service is, otherwise, useful in accomplishing an objective, and thereby initiating an action.

On the other hand, wheat is relatively abundant yet continually retains some value. Wheat provides bread and eliminates hunger. It is clear that economists must see activity in the economic world. That concept – action -- is what economists study, and the nature of the product that the activity is concerned with is secondary to the dynamics of that activity. Scarcity, while it is important, cannot be the controlling factor in any economic study.

Scarcity has another aspect. It is a limitation, not an encouragement. Limitations are needed when harm can ensue from an action, but never, in themselves, accomplish anything. An example of the devastating effect of a limitation is the attitude of the church during the middle ages toward interest. Calling it a sin limited its use to those who were not part of the church, usually the Jews, and economic activity was hampered by the lack of a ready source and mechanism for funding projects.

The ban on "usury" arose from a very real situation that devastated the western Roman Empire just before its fall (as will appear later) but the excesses of the Roman banker was met by the excesses of the solution to the problem, and people suffered for many years because of both. As Piet Hein wrote,

When People start to plan,
And make up value systems,
They often choose as opposites
Stupidity and wisdom

But among wisdom-choppers
It's accepted, with avidity
Stupidity's true opposite
Is the opposite stupidity.

We sometimes admire the people who place the limitation of scarcity on products that are needed for economic activity. A certain man was a surveyor in Ohio and found land available when he had money to buy. After many years; he owned well over a thousand acres, much of it farm land that he had no way of using. Since he owned it, no one else could use it either. Prices of land that could be used rose so much that farmers could not economically purchase the land they needed to grow crops, yet these same farmers admired the surveyor.

The Hydrology Model

One model for the whole of the economy is to make a comparison to hydrology. Hydrology is the movement of water; from rain, down streams and rivers to oceans evaporating anew and returning to vapor so that it can rain again. To study water in the clouds is a good idea. To understand its nature makes things seem simple, but unless it is considered as part of an overall whole system of the nature of water and its relationship to the world, it is not thoroughly understood. Economists have a similar circumstance. If the economy is to deal only with the flow of money downstream, as measured by the transaction, it is as if they were dealing with only liquid water. Such a point of view in hydrology must assume, without study, the nature of water in the clouds arising from the ocean and moving back to fall as the rain that waters the headwaters of the streams. The same problem arises in economics. Some economists have limited their interests to monetary economics and have failed to notice that there are many parts of the economic world that do not deal with money at all.

Gross national product and other measures of the wealth tend to deal in money. Wealth, however, is not actually related to that famous commodity. A person who has no money but is capable of providing all his needs by resources that do not include money is no less an economic entity than one who must receive money and must spend it. Both Charles Dickens and W.C Fields have noted that one dollar, or one pound more revenue than outgo is sufficient to be wealthy while one pound or one dollar more outgo that income is poverty. Realistically, wealth must be measured by these criteria.

A Non-Monetary Example

Uncle Hascue and Aunt Flora lived on a thirteen acre farm in North Carolina. They saved seeds from one year to the next, had a cow, raised a few pigs and generally had no need for money. They were quick to complain about the poverty level established by the government, since their own life did not require very much. Flora said that they had never had six hundred dollars in any one year. Because they didn't travel, buy groceries, go to movies, or have any other significant reasons to spend money, they managed well on the little money they had. Their resources included the land itself, their knowledge of what that land could produce, and their willingness to eliminate expenditure that other people consider necessary. They had many resources but little money.

Uncle Hascue and Aunt Flora lived well on their thirteen acres. Their resources included a clear title to the land, knowledge of what vegetables would live in the soil on their farm, livestock, knowledge of how to preserve what they grew, a discipline that eliminated unnecessary spending, friendship with those who might have reason to cause them harm and many other specific things that worked to their favor. All of these things were vested in their estate, but would never have been written down or known to those who were not involved in their lives. To this was added their time, their patience and their confidence in themselves. Sometimes they used their time to help others and were paid, without reporting the payment, and sometimes the produce that they raised (especially tobacco) was exchanged for money. This money in turn was exchanged for other things they could not raise themselves. Their life was spent on the edge of the money economy, and like most people's lives was imperfectly connected to it.

For Uncle Hascue and Aunt Flora, all of their resources were enough to cover all of their needs. There are at least two classifications of needs that can give us insight into the ways that needs influence the economic activities of people. Uncle Hascue and Aunt Flora had priorities that influenced which needs they would fulfill. Abraham Maslow's book MOTIVATION AND PERSONALITY deals with a hierarchy of needs and refers to just such a prioritization. First, in terms of that hierarchy, Flora made sure that there was food in the house (survival). Next they canned and preserved for future use what they would need during the rest of the year (security). Then, they established relationships with their neighbors through their church (belonging.) After that they took care of the children (family.) When these things were done, they beautified their home (personal fulfillment). This prioritization leads to consequences in economics that affect the demand curves of various products.

Money and Transactions

Many economists consider that the transaction with money is the sole basis of the economy. The nature of transactions, however, is not that they are an exchange of one item for money, but the exchange of one thing for another. For example, I want a newly mowed yard. I may use money, to get the yard mowed, but I also may use my time plus some capital invested in a lawnmower. I can get the same result as if I had used money but money has not been used. Money is a part of the resource of the individual but in turn it is the result of a similar transaction when something of value was given up for money. If we measure the economy only at the point at which money exchanged hands we count the value of a transaction that involves money twice, but do not count the same transaction at all when money is not exchanged.

There are two reasons that the economists do not spend time on anything other than the observation of money transactions. The first is the serious difficulty of measuring such transactions. How do I value the mowed yard, if all it took was my time to mow it? We must understand the nature of value and the difference between a quantitative amount, as illustrated by money transactions, and the valuation of a non-monetary transaction. Without that understanding economists are forced to overlook the other parts of the economy that do not involve money. The nature of value is such that the motion and dynamic action of a value cannot be made stable. At breakfast an egg is valuable. You might pay quite a bit to buy an egg at breakfast. At ten in the morning when you are in the field, have no stove, and are not hungry, an egg has no value. No person would want it. Values arise momentarily. Once satisfied they dissolve and have no being. The very volatility of value makes measurement of the values involved in a transaction impossible unless only money transactions are included.

The second reason is that nonmonetary transactions do not have pragmatic value. You cannot go to the store and trade any nonmonetary value. Nonmonetary values have a life of their own. Sometimes nonmonetary values die instantly. The hula hoop both rose and fell momentarily in value. When the hula hoop lost its value many supplies in stores could not be sold. Without value they were unusable and unsellable. Values are momentary, transient, and frequently not understandable, but where transactions occur, and money is exchanged, they become visible. After the transaction a fixed price is established that has the appearance of measuring value even though that idea of value is fallacious.

Attributes of Values

While values are momentary, transient and frequently are not understandable they do have certain consistent characteristics. One of these characteristics is that they are limited by the resources available. If a person has a need for an item in 24 hours, yet has to spend 48 hours to acquire it, value cannot exist. At all times values are dependent upon resources available to use in exchange for the item that is valued. Values exist only in exchanges, but no exchange can take place if the resources available are insufficient to make the exchange

One way of saying this is that if your outgo exceeds your income your upkeep becomes your downfall. This limitation is real. But at the same time there is a perceptual limitation that can govern this limitation of value. If I perceive that I will receive a million dollars I may ignore the limitation. If on the other hand, I have many resources but choose to believe I have none this limitation will be in control even though there actually and realistically is a higher limitation. Perceptions tend to control economic activity until reality becomes obvious. Often reality is not accepted even when it is obvious.

Values are personal. If a person (for instance you) has a financial note or bond which is quoted on some market at $120,000 and yields 10 per cent, you would receive $1,000 each month from this investment. Suppose that at an auction, you are lucky enough to buy a house for $50,000.00. Your value will not be $50,000.00. It will be what use the house has to you. If that house replaced a home that you rented for $1000 a month, you have had to use all of the proceeds of your bond to pay the rent. Now you have no rent. To replace what you spend on rent, your value in the house is $120,000. If you buy the house at an auction for $50,000.00 and someone offers you $75,000 five minutes later, you should not accept the offer. Instead of having a $25,000.00 profit ($75,000 offered minus the cost, $50,000), you would actually have a $45,000.00 loss ($120,000 value minus what you received, $75,000). Your cost in purchasing the house has no relationship to its value to you. It also has no relationship to the value that anyone else may have in the same item. The value that the possible buyer would give you bears no relationship to the value you place on the house.

Price and past purchases have no meaning when you value an item. Many people feel that a store should use its historical value in inventory in pricing what it plans to sell. A can of peaches cost 25¢ and sold for 30¢. While it was on the shelf, the replacement cost from the supplier rose to 35¢. You would have five cent profit on historical cost, but have a five cent loss on an actual economic basis. To return your situation to what it was before the transaction would require that additional outgo.

Values in any transaction are not the same for either party to the transaction. You may be willing to sell your time to a factory for five dollars an hour. The factory would not be buying your time. They would be buying the results of what of your activity accomplished during that time. If your job was to package products and you could pack fifty items in an hour, the value of an hour of your time to the factory is fifty items packaged, fifty items for five dollars (your pay rate.) If another individual could package one hundred items in an hour for the same amount of money, their hour would be half as expensive for the factory as your hour, one hundred items for five dollars. Because values are personal to each individual and each transaction, each party to the transaction must determine his own value and he must determine whether the transaction can occur or not by reference to the value of what will be given up and to the value of what is received. Each transaction then is made up of different individuals having a different value for each item in the exchange but finding that each one's value for what he will receive is more important to him than what he is giving up.

Values are not related to the item being valued. This may seem to be a strange statement. If you have two identical pencils and someone is in need of writing the telephone number of a beautiful blonde, he may be willing to pay you $10.00 for your pencil. The value of the pencil is $10.00. However, if there is no one willing to pay that amount, and you had no use for the pencil yourself, you may have to accept five cents for the second identical pencil. They are identical pencils but the value of the pencil is not related to the pencil itself. (Incidentally, the ten dollar value was momentary, and you need to be somewhere else when the buyer realizes it.)

This idea gives us a clue as to what the real nature of value is. It shows us that value is the ability to satisfy some unfulfilled objective of the person who is doing the valuing. The understanding of the need, wish, demand, or other word used to describe this objective is essential to better understanding of what makes economic thoughts and actions known. It is important to understand that the objective may have many different possible characteristics. For activity based on coordination to succeed there must be one and only one source of coordination. If there is a competing source of coordination, there will be confusion, and coordination will not exist. The value of coordination not only decreases, but actually disappears if the quantity of coordinators is more than one.

There are at least twelve ways that wishes can require fulfillment. Fulfillment of a need for coordination may require that none other than the one coordinating the activity be allowed to exist. Coordination requires that one source have full ability to coordinate all the activities around it. Only one source of coordination will work. Second sources of working together cause such confusion that value cannot be established. The conflict in what was once Yugoslavia destroyed the ability of the people to rely on one source of coordination. All economic activity was destroyed in that case. Croats wanted to coordinate all activities in accordance with their principles. Moslems and Serbs tried to do the same. There was never a final judge acceptable to all to determine what was to be done.

Reality is another basic principle. It requires that a person not use resources in a way is that is unreal and unnecessary. Reality requires that people eat. A friend once had a horse that he tried to wean from eating, but just when he believed he had succeeded, the horse died. Every action that is accepted as useful has a basis in reality. But reality has to be the reality that is perceived to be used, and it must be actual to be effective. American foreign Policy assumes that everyone accepts American values of compassion and benevolence. These values are often unacceptable to other people. The resulting disagreements are confusing to Americans, because their inability to understand conflicting values places them at odds with their compatriots on the planet.

Action which is required to accomplish anything may require a different valuation. To get another person to do something may require money, favors, or some other type of value. At different times punishment and slavery were used. Action requires a threshold of resources and an objective to be useful. Without that minimum amount of resources people become unable to act. Inaction creates boredom. Boredom and action are opposites. When people are bored they may act irrationally, just to avoid boredom. Additionally, the lack of ability to act in a responsible way may be used by some as an excuse, or justification, for acting irresponsibly. Two girls in Akron, Ohio vandalized their neighborhood with paint. Their excuse was "We had nothing else to do."

Objectives may or may not be easy to come by. (The valuation of things, locations, knowledge, and relationships typically are related to objectives.) A person who has no objectives will simply relax and accomplish nothing. Typically, everyone has objectives, if only to eat. The frustration of not being able to accomplish those objectives is the drive that causes people to take action, and produce economic activity. That frustration will only be effective if the action overcomes it. True boredom that can not be overcome alienates people. The result is often revolt against the cause of the frustration.

Denial of basic threshold resources to Palestinians by Israelis causes the Palestinians to realize that their efforts and activities are going to be frustrated in any case. It is better to be dead in such a situation, and many act accordingly. Israelis are silly to create a problem and not expect it to exist. Unfortunately at this point, the only true solution to this problem would be the annihilation of the Palestinians.

Things, knowledge, relationships, and locations are all necessary for accomplishment of objectives. Each of these has a different method of being valued. First, locations both in time and space have finite values and are limited by supply Second, relationships are resources that allow families, partnerships and other combinations to exist. Developing relationships seldom require money in the initial stage. Third, things have a different type of valuation. Where scarcity of things applies, more can be manufactured. Fourth, knowledge becomes part of the over all makeup of the person who learns it. Once knowledge is attained it becomes a resource and demands no more expenditure of other resources. Each of these categories of goods and services has its own style of valuation

The ability to obtain, protect, use and dispose of what is available may create other means by which value is determined.

Without purpose, nothing has value; without action nothing has value; reality means that value must fit into the structure of the economy; and without coordination values are lost. These four concepts are controlling concepts, yet none of these involve money. Advertisers have to provide an objective and get action. An individual has to decide what is real in his perception of reality. Coordination is necessary for value to be perceived. These are controlling concepts of economics but are seldom studied, seldom understood because monetary economic activity is the principle economic interest.

The academic and practical side of economics deals with the second four of these twelve principals. Locations in space and time are finite. To build a thirty foot boat in a twelve foot basement would be an exercise in futility. To try to do a forty-eight hour job in twenty-four hours without help would be silly. There is a finite amount of these factors to be used to accomplish the main objective, whatever that objective is. Each day we have a maximum of twenty-four hours, some of which must be used for rest and recreation. There is a direct relationship with locations in time and space that limit us in all we have to do. These limitations give us a type of economic value that could be called rent. Here is where scarcity becomes a necessary part of economics. If the objective is assumed, the demand is derived from it. This is the time when the comparison of demand and supply becomes effective.

Things, on the other hand, are not finite. We can make, manufacture, or buy many things that can be used to accomplish a purpose. Things, therefore, have a different type and characteristic of economic activity. Supply and demand are necessary for rents because there is a limited supply, but commodities, -- things -- are less limited. At any one moment the supply is fixed, but over time supply will rise to meet the demand. Typically, things have a separate cycle of life that does not parallel the financial cycle touching it only at the point where an objective is satisfied. Gravel in the ground has no value. Gravel mined has only the appearance of the value of what it cost to get it out of the ground. The value of gravel on the ground in a driveway will encourage people to pay for it. (At this point, when the payment is made, there is an interaction between the production cycle of the gravel and the financial cycle.) Over time, gravel sinks into the ground again and becomes valueless because it is no longer usable. The cycle of production starts with no value. By activity it develops value, but at some time it becomes valueless again. Cotton in the field has no real value. Picked, carded, woven, cut, and sewn, it becomes a shirt. The shirt is paid for in an economic transaction but as it is worn out it eventually develops a negative value, since it must be disposed of. After its disposal, it has no value again.

Knowledge is an entirely different type of necessity relating to an objective. Until the woman knows how to sew, she will not be able to make a dress. She can learn how to sew but when she has learned she no longer needs to learn. She has the knowledge. College, training school learning, and vocational learning all have a similar investment necessity. It costs so much to learn to teach. Once that is learned, with updating and maintaining, knowledge retains its value as a resource. However, actual payments which are the transactions measured by economists are no longer needed.

Relationships are essential to human activity. Mother and daughter is a relationship. Father and son is a relationship. Obtaining these relationships normally does not involve financial activity except that activities such as golf, work and common play provide means by which relationships can develop. The phenomenon of Michael Jackson, Elvis Presley, Frank Sinatra and other such megastars has economic value because these stars provide a means by which people can continue to refer to common interests

Communication is a matter of relationships. An American was visiting Monaco. He had a good accent for the little French he knew and asked a street sweeper; "Es que sais un vie a la chemin superieur" (Is there away to the higher road?). To his chagrin the sweeper launched on a five minute spiel in French. The American could not understand a word. Without understanding our relationships to each other and to the world, and specifically by choosing to limit those relationships -- such as in Serbia, Croatia and Bosnia -- we destroy economic activity. Value is limited by these four concepts, things, locations, relationships and knowledge.

These second four concepts are limitations that restrict any economic activity that might have been developed by the first four concepts. The last four concepts provide a means of dealing with those limitations. Obtaining relationships is an economic activity; protecting those relationships is also an economic activity, as is using those concepts; and there is economic value of disposing of things as that becomes necessary. These twelve concepts are central for economic activity. Obtaining, using, protecting and losing are four concepts that apply to all other concepts and activities.

Economic activity is not necessarily monetary activity. Monetary activity, if we use the hydrological model, is like the rapids in a stream. As long as there is value flowing down stream, the monetary activity is realistic, but what happens when value no longer exists because there is no longer any value flowing down stream? Such a possibility occurs in depressions, and requires our understanding.

ORGANIC ECONOMICS

Although the study of economics is the study of economic activity, there can be no activity unless there is something that is active. Hydrology is a study of the activity of water, but that study would not be complete without an understanding of what becomes wet. The economic entity requires some study as well. For this purpose economics could be likened to the human body. Every person ingests and eliminates food and waste every day. The structure renews itself in the process, and at the end of a year, only a very small percentage of the body remains the same as it was the preceding year. In all this process the structure of the body remains essentially unchanged. Economic entities have the same characteristics. A retail store receives goods, displays them and delivers them, but the store itself is little changed by this activity. Even the fixtures that constitute the physical attributes of the store change over time, and a store has a birth, grows old and dies just as a person does. Yet the store remains as an economic entity throughout the changes that occur during its life.

The activities of the store also are not always financial activities. Fixtures may be removed from stock and placed on display. Personnel may contribute to the store's success without being paid, (especially manager's time). The store may contribute to charity, or allow its premises to be used without payment. Many store activities are not included in the financial records of the company. But there is one inflexible rule, no store can give out more that it has or can get. This gross transaction limitation is one of the most inflexible rules in economic study.

When Elizabeth's England defeated Phillip's Spanish Armada, her sailors were kept on the ship in port and allowed to die, so that the fleet would not have to pay off the sailors. Phillip, on the other hand, cared for his sailors and instituted taxes that the people of Spain had to pay. English merchants took advantage of this situation and smuggled in untaxed merchandise that undersold merchandise made by the Spanish workers and put them out of business. Spanish merchants did not have and could not get the cost of their merchandise, and the taxes as well. The gross transaction limitation put the Spanish merchants out of business.

A similar situation is in effect in the United States with social security as we will see later.

With the collapse of the business interests in Spain, the normal economic cycle could not continue. As a result Spain, Mexico and other countries had to turn to a different type of an economic activity. In Spain, this was based upon the relationships of the hacienda owner and the peon. Coordination of activity required that the peon do what the haciendado told him to do. Mexican economics continued with the haciendado system until the Mexican revolution in 1910. That revolution was a revolt against the excesses that the haciendado system allowed. By concentrating all of the land to crops that the owner could sell there was no land left for peons to farm. To survive, the Zapatistas had to reclaim the right to use the land.

The fall of the Roman Empire has usually been ascribed to military activity on the part of the Franks but the writings of an Ammianus Marcellinus describe a time when the emperor Julian was forced to put out a mutiny of his soldiers, caused by the failure of grain to arrive from Aquitaine. The mutiny was stopped only when a new shipment of grain arrived. This reinforces the idea that it is the economic activity that is important in History and not the military.

Moses Hadas has quoted a Latin Panagyric from the time of the Emperor Constantine:

> "Another panegyrist, speaking before Constantine at Autun in A.D 311, mentions the desolation the Bagaudae had wrought in Bourgogne:
>
> "Land which has never repaid cultivation is necessarily abandoned, and so it is when impoverished farmers are so weighed down by debt that they are not free to channel water or clear brush; and so soil that was once tolerable is sunk in marshes or overrun with brambles. But even the famous region (of Beaune and Chalon-sur-Saone) is smitten with sterility. Its lowest portion has some vines, but to the rear all the rest is forest and inaccessible rocks, the haunts of wild beasts. The plain at the foot of the hills stretching to the Saone was at one time, I hear, a flourishing place. Constant care in each farm kept the channels clear to drain the flow of the springs. Now it is abandoned and the channels are choked: the rich bottom land has been turned into a swamp. Even the vines which the ignorant admire so are grown too old to respond to cultivation.... Why should I speak of other localities in that area? You have confessed that they brought tears to your eyes. You saw no cultivated, cleared, flourishing land, no easy roads, no navigable rivers washing the very gates of towns, but immediately after the fork of the road to Belgium everything was desolate, uncared for, rank, mute, and dismal. Even the military roads were so rough and hilly and broken as not to admit half-loaded or even empty carts."

This situation, where the farmers could not provide for the necessity of fixing their fields, would indicate that production on these farms slowly decreased. Because of this failure to maintain the relationship of revenues and expenses for those farmers who were required to do the work, Gaul fell. The idea that the withdrawal of support by those who could no longer live under the Roman system was the cause of the fall of the Western Roman Empire, rather than military activity is a valid possibility, at least in Gaul. This is further supported by Salvian (also Quoted by Moses Hadas) who comments less than 150 years later:

> "All the while the poor are despoiled, widows groan, orphans are trodden underfoot, to the degree that many -- and these of good birth and liberal education -- flee to the enemy to avoid death by official persecution. They seek among barbarians the dignity of the Roman because they cannot bear barbarous indignity among the Romans. Although these Romans differ in religion and language from the, barbarians to whom they flee, and differ from them also in personal cleanliness and clothing, nevertheless, as I have said, they prefer to bear among the barbarians a worship unlike their own rather than rampant injustice among Romans.
>
> "Thus far and wide they migrate either to the Goths or the Bagaudae or to other barbarians wherever they may be in power; yet they do not repent having migrated. They prefer to live as freemen under an outward form of captivity than as captives under a specious appearance of liberty. Therefore the title of Roman citizens, at one time not only greatly valued but dearly bought, is now repudiated and evaded, and it is almost considered not only base but even deserving of abhorrence. What could be clearer proof of Roman wickedness than the fact that many upright and noble men by whom Roman citizenship should be valued as a splendid and dignified state have been driven to such a state of mind by Roman cruelty and wickedness that they no longer wish to be Romans? Hence even those who do not flee to the barbarians are forced to be barbarians. Such is the condition of the greater part of the Spaniards and not the least part of the Gauls, and indeed of all those throughout the whole Roman world whom Roman wickedness has compelled not to be Romans."

The Western Roman Empire fell because economic structures of the inhabitants failed to be maintained and strengthened. The military activities of the Franks were the result of the fall of the Roman Empire, not its cause.

Income and Outgo

In economic structures income must exceed outgo. The clear understanding of the requirement that resources exceed needs does not mean that resources have to greatly exceed needs. Both Charles Dickens and W.C Fields have noted that one dollar, or one pound more income than outgo is sufficient to be wealth while one pound or one dollar more outgo that income is poverty.

Dollar economies are actually very rare in most parts of the world and in most times. Because of the surplus of resources in the equatorial jungle the necessity for trading between different members of the community was never a problem. In the local languages of Bulape, Congo (Zaire) there is no word for house or food. Shelter was easily manufactured from palm leaves laid one over the other and food grows profusely. The economic requirements to satisfy the needs of these people rested not on material items but upon relationships. Income and outgo are expressed in relationships there rather than money. To this day the people of Africa are more concerned with a poetic mastery of language and a clear hierarchy of relationships then they are about acquiring material goods. When material goods were made available to them in the terms of money for gold or diamonds, the use of this material has been to establish status and to place an individual at the highest level of status in the community. By giving access to the elements of status to many people, coordination is lost, and war is frequent.

Other economic possibilities are described in the book ROOTS by Alex Hailey. This book described the economy of the Mende of western Africa. This economy has been based upon a specific role in the community. Each individual had a specific job to accomplish. Each person over the age of eight was assigned a traditional job. At eight each child started guarding the goats, at twelve they cared for the cattle. Every different age had its role and these roles changed until all of the roles needed by the community had been handled by each one at a different stage of life.

In Russia the Boyars owned the villages. These villages, known as "mirs," had a requirement that every individual contribute to the good of the community. The village was required to provide the Boyars with so much grain and the exodus of any individual from the community jeopardized the village's ability to live up to its requirements. Fear of the loss of its young people required that the village do all in its power to prohibit the movement of young people from one village to another. Serfdom continued to exist because the established relationships required it. The villagers were more concerned about loss of labor than the Boyars. The legalities followed the customs.

The Mir accepted the requirement of loyalty to the Boyars because at one time Russian peasants were captured regularly by Patchenegs and other barbarians from the steppes of central Asia. These warriors sold the Russian peasants as slaves in Constantinople and Egypt. Fear of being captured and sold as slaves was so strong that the people of the villages were willing to support a military force four times larger than western countries that had far greater population, as well as a system of serfdom.

By this time you will have noticed that everything is "obvious," and would seem to be belabored, but let's look closely at the points covered so far.

1. Economics is the study of activity.

2. The unit of measurement of activity is value.

3. Value is the ability of a resource to accomplish an objective.

4. Value is related to the purpose and unrelated to the thing being valued.

5. Economic structures have resources and outgo.

6. Outgo can never exceed resources.

7. Resources are not related to money, but money may be a partial measurement of them.

The Nature of the Objective

If objectives create value and value determines demand, objectives are important to the economist. The objective of an accountant is to represent reality. Usually accountants do not accept any information that is not backed up by some concrete information. The puffery that salesmen use to make sales has no value for the accountant. A manager who wants action to accomplish a purpose will not value the beauty of an artist's painting. Each objective determines the value of everything related to it

Objectives come in all shapes and sizes. If a store keeper wants to keep from losing the glass in his front window, and a gang tells him that they will destroy it if he doesn't pay them, his objective becomes protecting his window. That objective may be accomplished by calling the police, or destroying the gang, but the possibility of these alternate solutions is a major factor in determining whether he is willing to pay or not. Normally a person will choose the solution that will work and that will use the least amount of the resources that he has available to him. The expectation that he can destroy the gang is so remote that there is little reason to expect him to use that solution. Calling the police will be used only is the storekeeper perceives that they will be able to protect his window. If the storekeeper considers that the threat is real, his desire for protection becomes one of his objectives.

Objectives have lives of their own. Photographers know the value of having their cameras ready at the moment they observe a beautiful sight. If the photographer is not expecting a picture he will not get his camera ready. If he does and is ready he makes a picture. The moment arises and disappears quickly, and if the situation has not been expected and prepared for, the picture is lost.

Impulse buying is a concept that grocers use to increase their sales. The buyer is shown how the product will satisfy some likely objective, that product is placed where the buyer will see it as he passes, and usually the buyer will, on impulse, buy it. If the product is not shown to satisfy some objective, however, the buyer will not pay any attention to the advertisement and will not make the purchase.

Objectives also have different characteristics based upon categories. Objectives of coordination require that one and only one source of authority be allowed. Objectives of reality require constant review and recording. Objectives of action require accommodation to the preferences of the worker.

When more than one source of authority exists, coordination is impossible. Under the warlords of Afghanistan, the expectation that people will cooperate with each other becomes remote. The efforts of each warlord to become the sole source of authority destroy the ability of the people to live at peace. Each warlord has the wish to be the most important person in his area, and the boundaries of his area are not fixed. Time and effort is spent in establishing supremacy that could be spent on providing what is needed for more important objectives.

The stability that comes with cooperating with reality shows another category of objectives. Accountants have the objective of assuring their readers users of their work that the information they use is real, and not just a pipedream. Arthur Anderson's demise is not because its people did not work, or because they did not do the job assigned to them. It is clearly because people perceived that their signature did not guarantee reality.

Objectives involving action are a different category as well. Accomplishment of most objectives requires obtaining action. Often people want things done their way, and when there is difficulty having someone do it their way, react by saying, I'd rather do it myself." Efficient businessmen, however, recognize that there are only so many hours in a day. By defining what is needed, by encouraging others, and by assuring that workers are supported, not condemned, or exploited, these managers are able to obtain cooperation of those they work with, and obtain the action they need from their workers. Many times the result is large corporations, all dedicated to the same objective, and involving many workers.

Objectives have different characteristics depending on the nature of what can be accomplished. If the objective is to establish realism in a physical world (registration of deeds, for example) requires that a great deal of time be spent on covering the minutiae of every part of a transaction (such as a real estate sale). The value of the work of a title company is based upon the accuracy and thoroughness that assures that there will be no contest about the land after it has changed hands. Similarly, the value of an accountant's work is based upon how well the readers of his report can be assured of the validity of his presentation.

Objectives of action require a different set of criteria. Teeg was a black and white dog and got his name from the word integration, black and white together. Each morning at nine twenty seven, he went to the door and waited for it to be opened. Once it was opened, he went south into the sagebrush near Taos, New Mexico and disappeared. At eight minutes after eleven, he would bark at the door to be let in. He was seen to come back from the east every time. He had established a pattern of action.

Most people deal with action in just such a rhythmic fashion. Where the only change in climate is the daily cycle, as in Central Africa, that rhythm is short and basic. Where the changes include seasonal change as well, longer cycles give a different attitude toward action and more variety in the actions of people.

On the other hand if action to avoid boredom is the goal, a different situation occurs. If entertainment is the goal, a performer needs to be loose, and easy. Neither accuracy nor reality is needed to perform as a comedian. A party host has the objective of making people feel at ease. In these circumstances, a relaxed, confident air is essential, even if the host is penniless. We cannot expect that a salesman can make an accurate, precise and exact representation of the physical properties of his product if he is selling a dream of an action that involves the imagination of the purchaser. That dream may mean a complete change of every part of the purchase, and the nature of such real things as the furnace in the basement is irrelevant. Whatever the goal, the value of any activity, or thing is directly related to its ability to accomplish the goal.

Objectives may or may not be stated. Analysis of actions often shows that objectives may not ever be recognized. When asked why pro-life movement did not have more emphasis on making the life of the mother better so that she would not want an abortion, the reply was, "That would be too hard, and besides it wouldn't ***get people worked up.***" The presenter failed to notice that the objective of preventing abortion was secondary to the objective of obtaining both action, and coordination. Here, the activities of the pro-life movement show that the stated aims of the organization do not correspond with the observed aims.

There are several reasons for believing this. Laws that prohibit actions do not apply if the circumstances create a situation where obeying the law is impossible. Undercover doctors, who are not registered to begin with, are able to make far more income from clandestine operations than from legal procedures. Prior to Roe vs. Wade, the prevalence of Dilation and Curatage, (D & C, a standard medical procedure) was frequently noted. Since that decision, the procedure is far less prevalent. Another procedure will be instituted if laws prohibit abortion.

(While this writing notes the silliness of the pro-life movement, it is not passing judgment, since there is never a reason for abortion, unless the alternative is worse.)

Determination of the objective of an economic entity is not necessarily to be found in the stated aims of the entity. Whenever the actions of an individual, family, organization, partnership, corporation, or any other economic entity or structure does not work toward the stated aim of the entity, an analysis of the actions of the entity will show that a different goal is really their interest. People do not support objectives that do not produce results that they accept or tolerate.

That support is not necessarily in the form of money. Social clubs frequently have balance sheets with negative net worth. The purpose of the club is to provide facilities where people can gather and enjoy themselves. Plumbers who are members often fix the plumbing without charge, and other members contribute to the continued existence of the club. Balance sheets of such clubs often show negative net worth, yet their existence is never imperiled.

Objectives may be direct or indirect. Working in a factory for money to buy food is indirect to the primary objective for eating. Buying a camera is an indirect objective to a photographer whose direct objective is to take a picture. This distinction plays a major part in the phenomenon of substitution. A photographer originally made his pictures in daguerreotype. Each time a different process that made photography easier was found, the photographer abandoned the more expensive for the cheaper process, but the primary objective remains the photograph.

Indirect objectives can be found in many layers. The farther each layer is from the direct objective, the more instability affects the economic health of the structure. Such a situation would mean that makers of pigment for paint will need to be more alert to the color changes in new cars than the paint makers, who will need to be more aware than the painters, who will need to listen to the salesmen and engineers who are directly in contact with the buyers and designers.

The direct objective, making a picture, remained unchanged. The indirect objectives are constantly changing. A typical shirt, for example, may have customer, salesman, buyer, sewer, weaver, thread maker, and cotton grower among others, as the layers needed to produce a shirt. A change in preference from cotton to polyester will change certain of these layers. A change in color will affect others, but the owner of the shirt will continue to wear clothes.

No economic activity can occur without some objective involved. Seemingly random acts often can be found to have been rooted in some objective. A woman whose father died while she was a teenager may feel that he abandoned her and have the objective of punishing all men because of her feelings. That objective seems irrational, but it exists. The objective involved may not be understood, even by the individual, but the objective is there. Some girls vandalized cars and homes with spray paint, and when confronted, said that they were bored. They vandalized property with the objective of escaping boredom.

It becomes obvious from this that objectives do not have to be known or important to influence economic activity. The nature of human beings is to be active, and the first objective of many people is to avoid boredom. Obtaining more important objectives for those who would otherwise act out of boredom is an important objective for society at large. By creating a valid contributory objective for those who otherwise might cause problems, society is protecting itself.

A real failure in our educational system is the idea that children are sent to school to give parents the freedom to work. The teacher then is a disciplinarian whose job is to control the children. In this case controls create boredom and the incompatibility of the children's objective (to avoid boredom) with the teacher's creates a real disciplinary problem.

Resources

The teacher asked the class why they were in an accounting class. A student answered "Because I want to make money." The teacher responded that he would get a reward from the FBI for turning him in. "Making money is known as counterfeiting, and that's a crime."

Money is required to accomplish many objectives. People do not work for you unless you pay them, and many things that are needed require that we purchase them with money. But where does the money come from? Factory workers exchange their time for money. Mine owners exchange ore or metals for money. Salesmen receive money as commissions for accomplishing an agreed upon transaction. Teachers receive money for conducting classes.

But many sources of money are not so easily identified. Wives receive money because they are cared for by their husbands. Bond holders receive money because the clip the coupon from the bond. Thieves receive money because they take it from others. Protection racketeers receive money because they have frightened their marks. Politicians receive money because they can influence the coordination of laws. Prostitutes receive money for renting their bodies. All of these sources of money are resources for the economic structure that receives them.

Resources, however, are not limited to things that can be exchanged for money. Earlier, we noted that an objective of a mowed lawn can be obtained by hiring someone to mow the lawn, by doing something for another person in exchange for his mowing the lawn, by requiring a son or daughter to do the job, or by taking the time to mow it yourself. Resources do not have to be turned into money.

An instructor in an investments class pointed out that there are a number of ways to acquire money to invest. He listed, marry it, inherit it, steal it, find it or save it. Of these choices, only saving it was accepted by the general public. But what does saving it mean? The difference between the prices you receive for the resource you give up and the price you pay for the aggregate of all your purchases is still available to be spent. This is savings.

What you can give up in exchange for something else that will accomplish some objective, or objectives, is a resource. It does not become a resource until you consider it a resource, and choose to relinquish it. The actions of the muscles in your lungs are a resource because you can choose not to breathe. When you choose to breathe, you make those actions resources.

A breath is not an expensive transaction. We do it all the time. The air that we breathe is free for the inhalation. Because of this we do not spend money or any other resource on the act of breathing. However, when emphysema causes people not to be able to breathe, the alternative, sometimes portable oxygen tanks, do cost money. While rational people usually choose the least expensive resource to give up for an objective, there are some hypochondriacs who choose to use oxygen tanks even though they are capable of breathing. Our objective, in this case sympathy, makes the choice of the item to be used as a resource for us.

Resources must either be valued by others, or not valued by us. A golfer, giving up his time to play a round of golf, has determined that his time, as a resource, is less valuable to him than the joys of playing the game. Here the resource given up, time, is less valued than the game. A factory worker, on the other hand, receives money for his time, but the amount of money received must be enough to overcome the alternative uses for his time. People sometimes do not pick up pennies when they find them on the street, because the effort of bending down to pick up the penny is more valuable than the penny itself.

Types of resources

Resources can be of many types. They can be found, stolen, traded, claims against others, byproducts, techniques, inside knowledge and many others.

Gold is a resource sometimes found loose on the ground. The Forty-niners of California found gold in the creek beds. If people recognized what it was (fool's gold looks the same) the gold was there for the taking. Many men prospected for this mineral and a number of them became rich. By being rich however they became targets of others who either hadn't found any gold, or were too lazy to look. These people stole what they needed from others. Gold was used to trade for other things that people needed.

One of the interesting developments in these gold fields was the fact that the miners who found the gold and mined it were not necessarily the ones who ended up with it. Women who fed the miners, and otherwise took care of them accepted gold in payment. Since the price was usually set by the cook, the miner's gold often ended up in the cook's hands. Found resources have a tendency to follow this course. Spanish gold ended up in English merchant's and German banker's hands.

The value of the gold declined as the quantity available increased. A constant value cannot be maintained as quantities increase. The incident of the sailors who found the Coco-de-mer coconut in the Seychelles (told elsewhere in this book) illustrates the reason this is so.

Obvious Vs Important

These points that I have summarized are obvious, but often people overlook the obvious. To many people, the fact that something is obvious means that it is also unimportant. These two concepts, "obvious" and "important," in fact are completely independent of each other. That we need air is both obvious and important. That the sky is blue is obvious buy not very important. That a person is left handed is not always obvious and also not important. The fact that a certain stock on the stock exchange is going to rise is not obvious, but is very important to the trader.

Two Digressions

We will return to the study of mega-economics later but first we need to make two digressions. The first of these is to discuss the necessity of looking at the actual situation rather than the situation as it ought to be. (The second will be the nature of mathematics.) Many people feel that if it is "bad" it doesn't exist. When this idea is in control, people are hurt by what they refuse to believe.

Pedro Carbajal is a ladron (thief) on the streets of Mexico City. In order to eat he has become a ladron, and he is good at it. Frequenting the Cambios (where money is exchanged, and checks cashed) he picks his mark and ingratiates himself. If he can, he lures the mark to a secluded spot and robs and may kill him. If the mark will not cooperate, his fast pitch makes the mark pay him anyway.

We may call his way of life reprehensible, label him a thief, and eventually put him in prison, but, for this study, we are not concerned with what ought to be, just what is a fact. Pedro's resources are his knowledge of the city, and his fast patter. With these resources, he acquires money, and uses the money to acquire the things that satisfy his objectives. What Pedro is can be labeled "bad," but it does exist.

The other side of this problem is that people have, in the past, used he fact that something exists as a justification for doing it. Machiavelli's THE PRINCE was a description of the power politics of his time. French Kings, among others used the book as a justification for whatever they chose to do. This is not an acceptable use for this idea.

Elsewhere in Mexico, it's the end of the dry season and you're traveling from to Taxco from Mexico City. You make a mistake and do not continue on the high road to Taxco but find yourself on a small road through this dry and dusty area. There's no activity in the town. The cattle have bones showing through their skin, but the donkeys are better able to use the resources of the area. They are still fat and sleek. The ground is barren and dry, so dry that it would be washed away with the first rains. The Grass has been eaten into the ground. This town has no resources.

The people are not active because they have nothing to be active with. Only the grass that grows behind fences still exists. In such a situation, people must export what they have and since all they have is time, it's not surprising that these people are found working in the United States, or on the streets of Mexico City, where work is available. There they can be active. That these people are what others call lazy cannot be disputed, but that they cannot be otherwise also cannot be disputed.

No social security comes to this farm village, no funds of any type are available to people there. When you measure economic activity you find that in such situations there is none. Taxco, because it has silver mines and work for people, has expanded from 16,000 in population to over 160,000 over the last fifteen years; but with no resources there is no economic activity in this smaller town. Often in towns such as Mexico City the work has already been apportioned and there is no more work to be had, but even here someone must eat.

Failure to effectively provide enough resources to enable a person contribute to his community has often made the idea that people should work laughable.

When Will Rogers laughed that, "The Baptists and the bootleggers will vote dry as long as they can stagger to the polls," everyone laughed. There was little concern that there was a reason that they voted as they did. Their laughter was because it really happened and was in contradiction of their avowed purposes. In a dry state, the bootleggers could easily get rid of competition and increase the value of their product by continuing to officially maintain the prohibition laws. The Baptist's purpose was more subtle. Without a creed, they did not have a common purpose to keep them together. Their covenant included a paragraph about refraining from all liquors, and prohibition was a means by which they could demonstrate their adherence to that covenant. People may not understand all the reasons they act as they do, but they are not stupid. Every action has a reason that relates to some objective.

This study will not attempt to deal with the right or wrong of any of the subjects studied. It is only interested in things, systems and processes as they are. Because it will accept things that are clearly wrong, some people may think that it is an immoral book and feel that it should be suppressed, because it might encourage what is wrong. Encouragement of anything is not an objective of this book. Its objective is to look at life as it is and accept it as it is. An alcoholic cannot respond to treatment if he continues to assume that he is a different person than he really is. An economy cannot rectify its problems if it continues to believe they do not exist.

The Second Digression

The second digression has to do with the nature of Mathematics. Again this is obvious, but because the application of mathematical principles affects economic activity so conclusively, we need to understand those principles. People study "Mathematics," and feel that they understand the subject. Frequently they fail to notice that "Mathematics" deals with a number of very different subjects. By failing to separate the different elements they often attempt to use a rule that is valid in one type of mathematics while working with a different type of mathematics and fail to understand why their answer makes no sense.

Counting math, including addition and subtraction, has only one rule – every item must be distinct. The introduction of set theory under the "New Math" was an attempt to improve math understanding, but it violated that one rule at the inception and created far more problems than it solved. Counting math can add people. One three-hundred pound man and one one-hundred woman count as two people. A method of avoiding loss while traveling is to count the number of items that must be accounted for each time you move. In this situation, a bag of soap, a purse and a suitcase are each one item.

Accumulation math, multiplication and division, has an additional rule. Each item must be the same as every other item. An airplane is not loaded by the number of people, since five three-hundred pound men do not have the same weight as five one-hundred pound women. The unit must be the same in multiplication and division.

Percentage and fractional math does not use either of these rules. There is one unit, -- one hundred percent – but that unit can be anything under the sun. There are any number of stories where misunderstanding this idea has allowed false impressions to enter news stories and give false impressions of circumstances. In one year, Russia had a growth rate of five per cent in GNP, while the United States had only two. Because of the difference in the base, however, actual increase in the United States was nearly twenty times greater that in Russia. Census records in 1980 showed a population increase of 38 percent in Henderson County, North Carolina, and 10 percent in the county next door, but because Buncombe County started with 170,000 and Henderson with 48,000 there were 1,000 more additional people in Buncombe than in Henderson. Percentages must be understood to be useful.

A news story in Russia once indicated that the Soviet track team had come in second in a meet, while America had come in next to last. It failed to mention that there were only two teams in the meet. Such distortions come easily with failure to recognize the interaction of absolute math with percentage math.

This interaction between percentage and accumulative math plays a vital part in the understanding of economic value.

Algebra, trigonometry, Calculus, all have different rules and different purposes. Just as in every other division of mathematics each of these must be understood separately.

Statistics is also considered a part of "Mathematics." Statistics, however, are separate and apart from mathematics, while using some of the same terminology. There is never an "accurate" answer to any question involving statistics. Most economic studies use statistics rather than mathematics and the mathematical terminology leads people to expect accuracy which is never possible and not even useful.

Before the American Civil War, every piece of clothing was individually made. Tailors were important and necessary workers in every town, as there were no store-bought, ready made, clothes. The number of men called to arms during that war meant that soldiers had to have clothes made without access to the tailor. Uniforms were ordered to fit most men and some clothes were too large and some too small. A second size, larger, was ordered and more men were able to get comfortable clothes. This process continued until there were many sizes ordered to be sent forward to the war zone. The makers noticed that there were always many more outfits ordered for the most central size and fewer and fewer ordered as the size varied from that size. Moreover, it became obvious that after thirty sizes were chosen, these size variances became stable. By going to a unit and determining the appropriate size for thirty men, they were able to make suitable uniforms for several hundred. The first thirty "represented" the whole unit. This "bell" curve circumstance was a pointer to the study of statistics.

Statistics uses this phenomenon to draw realistic pictures of quantities that are far too large to be measured. The results of statistical studies are representations of the most likely appearance of the overall quantity being considered. Most conventional economic studies use statistics because, for their purposes, the information obtained is as realistic as it is possible to acquire without interfering with the operation being studied.

Statistics does have its limitations. Like multiplication and division it must deal with a common unit (in economics the dollar) and it requires a homogenous population. Statistics based on the weight of men and women together will not make any sense. Each population has its own bell distribution curve and the men's curve would be different from the women's. To expect to clothe women based upon the men's statistics would be ludicrous.

This study does not use statistics because values are not easily quantified. Values are also quick to arise and disappear. In the logic of the nature of value, however, the difference between absolute mathematics (addition, subtraction, multiplication and division) and percentage mathematics becomes critical.

The Mathematical Scissors

These digressions seem to have little to do with economics. The first, if overlooked however, tends to cause us to look at economics as an ideal, with disbelief when something we believe should exist does not agree with our perceptions of what actually exists. The second is vital to understanding the nature of demand.

Marge Blackwell lived in a town of many millionaires. She herself was uneducated, and married to a man whose mental capacity was limited. At times he had held a job, but his ability to work was so limited that an employer lost money when he hired him. As a result, Marge was always scrounging to have enough to eat and care for her husband. Even with welfare her income barely covered her grocery requirements. She had her house free and clear, but other expenses used all of her available resources.

Word got around that grocery prices were about to rise by ten percent. The millionaires in town rearranged their finances and easily allowed the increase to take effect. The mathematical scissors had a different effect on Marge. Now groceries had a new price in absolute terms, her resources were fixed in absolute terms, but her ability to pay was completely destroyed in terms of the percent of her resources.

If you receive $1,000 per month and have vital needs for only $800 you have $200 to spend or save as you choose. Mildred received $800 and needed $775. A $30 increase in groceries for both was no problem to most, but Mildred could not overcome it

No person can pay out more than one hundred percent of their resources, -- that is, what they have and can get. Therefore, the maximum demand for any item, by any person, business, government, or other entity, depends upon the total resources of that entity. Resources are the perceived ability to give up something. The amount of resources is an absolute number. The price of any item, also, is the accepted perceived amount that the item commands. This also is in absolute terms, mathematically. The ability to use resources is a percentage mathematical problem, and changes each time either the resources or the price changes. Raised prices and lowered resources act as two blades of a pair of scissors. When these close enough the buyer is cut out of the economy altogether, and must look to other means to satisfy his needs.

The mathematical scissors is critical when demand is studied. Objectives vary, and the objectives that are most important take precedence over others. When the most important objectives have a price that is near the value of a buyer's resources, other objectives are dropped. The different nature of various priorities leads to different characteristics in their ability to be considered valuable. If a person is starving, food will have first priority. Self preservation in most cases has the highest priority, and people will hold on to what they perceive as their means of surviving even when better and easier means to survive are available. Their knowledge of what will allow them to survive stops them from making changes unless the change is clearly understood. "First level demand" is inflexible and difficult to change. If forced to make changes in their first level needs, people will fight with every possible means.

(First level priorities are a subject of a later chapter.)

Some resources are resources only because they can be used in a particular way. Time is often a resource, but can be used only when applied to other resources. If there is no market for an individual's time, it may not have any value as a resource. The Mexicans in the little town near Taxco had time in plenty, but no way to use that time, except for procreation, which has a separate set of resources that do not interact with other resources.

Money is a "medium of exchange". This term is frequently used in economics but seldom thoroughly explained. Resources that have limited usefulness and applicable only to specific objectives can be exchanged for money, and that money then accumulated and exchanged for resources that in turn allow satisfaction of different objectives. (Here we need to remember our first caveat. Morality is not a valid concern in economics or in this book.) Prostitution is a means of exchanging a sexual resource (usable for only that particular purpose) into food, shelter and other things that allow attainment of other objectives.

With money, then, resources can be utilized that otherwise would be wasted. The use of money allows accumulation and quantification of the resources that will be used to satisfy a large number of different objectives.

Money has another purpose. In colonial Virginia, Tobacco was easy to grow, and always had a definite demand from addicts in England. Everyone had access to it, and it frequently changed ownership regularly. Because it had a known value, and was easily transferable, it became a type of specie in the colony. It would seem silly for a planter to send tobacco to England, have specie sent back, and then return the specie to buy items in England. The colonists would find it much easier to have an account with a bank in England, and pay for their purchases in England with withdrawals from that account. Tobacco served as a replacement for specie in the colony, and everything worked well until Parliament required English specie for essential documents. Since there was little specie and less interest in acquiring it, the intolerable and stamp acts struck at the very basis of economic activity in that colony.

By having a clear standard acceptance, each citizen in Virginia knew how much value he needed to place on his tobacco in comparison to every other need he recognized. By using tobacco as a stable reference point, he could determine the percentage of his resources that he would need to assign to every other purpose. In turn his relationships with every other Virginian could be determined, because the community accepted a common valuation for tobacco. Tobacco, as specie, (like all money) was a bench mark to use for the valuation of each objective for the individual, and also a bench mark for interaction with the larger economy. Specie is always backed by a commonly accepted commodity.

To be specie, the commodity chosen does not need to be designated as such. It must have a value that is perceived to be nearly constant, be readily available, be easy to divide, and readily transferable. Tobacco served all these requirements. Gold, silver, and many other commodities have served as specie in the history of man. Specie makes it possible for all goods and services to have a common reference point. Within the framework of an individual's mathematical scissors, specie allows an individual to determine what amount of resources he needs to obtain to accomplish all his objectives, and determine whether those objectives can be accomplished or must be dropped. Externally, specie allows common references between people as to the nature of price. Value and price are not the same. As a factory worker, I value my time at the amount of resources the factory will pay. As a factory manager, I value the time I pay for in terms of what the factory worker accomplished during the time that I bought. Value is a relationship of the thing acquired to the objective for which it was acquired. Price is the common designation of amount established in the transaction.

Value then is a matter that relates only to the person doing the valuation. A certain man had an inn. Another wanted to buy it. The owner valued the inn according to what it would take to replace it. He had a place to live tax free, his meals were provided to him, and he had an income as well. To replace these things, the owner estimated that he would need $200,000. The buyer valued the inn on its income alone. He already had a restaurant and another inn so he had no need for the things that the owner valued. He valued the inn at $150,000. Of course no transaction took place. Valuation is the comparison of what will be given up and what will be gained in a transaction. For each participant, the exchange must increase what he perceives to be his total resources. Value is always a comparison, and quantification would only apply as a means to determine which is larger. Mathematical calculations do not belong in determination of value except to determine which is larger.

When large numbers of valuations occur, statistical inference can be applied. Statistical inference may indicate that a size 16/32-33 shirt has more value than a size 18½. This comes about because there are more people who fit the first size than the second. Individually, the value of each is the function of the size of the wearer. A man who wears the first size will not value the second size at all. A man who wears the second size will place no value on the first. The seller of shirts will place a value on each that relates to his ability to sell the shirts. The statistical inference will relate to the seller, but is of no concern to the buyer. Each participant places his own value on the item based on his own objective in acquiring the shirt.

There are three possibilities when a transaction is being contemplated. The owner of the inn valued the inn more than he valued what he would acquire if the transaction took place. He did not enter into the transaction. The second possibility is that the buyer valued what he would give up more than he valued what he would acquire. Neither of these possibilities will lead to a transaction. The third possibility, that both the buyer and seller value what they will obtain more than what they will give up does lead to a transaction, but the value is a range and not yet a price. If I value a shirt at up to a hundred dollars, and the retailer will sell the shirt for anything over twenty dollars, the value of the shirt is a range between twenty and a hundred dollars. Houses sell this way frequently. A seller will price his house at $100,000, and a buyer will offer $90,000. Negotiations then go back and forth, and the price will end up somewhere between those two amounts. Once the amount is set and paid it becomes a price.

Prices have different characteristics from values. Prices are set. Values are ephemeral. If I have offered $100,000 for some land, and the seller is asking $150,000, the negotiating range is between $100,000 and $150,000. When I discover oil on the land, my value becomes far greater than the top of the range. I do not change my offer, but my value has increased greatly. However, if I find something different, that becomes more important than the land, I may withdraw my offer. The land no longer has any value to me. Values can change from moment to moment. Prices, which only exist after a transaction has occurred, never change.

Just as prices reflect only one point between two values and do not reflect the values of the participants, so, too, prices do not reflect values after the transaction. Two identical pencils may be available to sell. The buyer of one needs to write down the phone number of a beautiful girl, and must have the pencil now, before he forgets it. If you charge him ten dollars, he will pay it. The other pencil is still on hand two hours later and someone offers five cents for it. You don't want it, and accept the five cents. Neither price reflects the value of the pencil to the buyer or the seller.

A classic fallacy of buyers is to believe that the amount a person pays for a property somehow relates to the price at which he should sell it. After paying rent of $500.00 per month for years, a renter attends an auction, and happens to buy a house for $30,000. Another buyer who missed the auction immediately offers him $40,000 for the house. It seems to be a $10,000 profit immediately. However, to fund the rent that he has been paying at 5% would require $120,000. The profit that he sees ($10,000) pales dramatically when compared to the loss he doesn't see ($120,000 – $40,000 or $80,000 thousand dollars). No transaction for expected profit should ever take place without each participant thoroughly analyzing the real value of the good or service to him. Prior prices have nothing whatever to do with subsequent transactions.

Percentages

The mathematical scissors apply to every economic structure. All outgoes are a percentage of the income of the structure. This leads to an understanding that as either the absolute income amount or the absolute outgo price changes the relationship of each outgo to all other outgoes also changes. When food (when food is the first priority) is priced at one hundred percent of a person's income, all other outgoes are set to zero. As the percentage needed for food becomes less, other priorities come into play.

The reason that the people of India are wealthier than the people of other countries is not that they receive more money. They do not. There wealth (shown by their ability to spend more of the money they have on movies than any other country) is created by the absence of high prices for those things that are higher in priority than movies.

Each economic structure beginning with the individual's, has a hierarchy of the things that it will use its resources for. Each structure is different. Old people do not buy diapers, and young people have no need for walking canes. It would seem that the combination of economic structures would require that individuals have a similar set of needs. The overall structure, however, can be stable even when individual needs are different. The combination of individuals in a marriage, for instance would indicate a need for shaving dream and lipstick. Neither wants both, but together the members of the marriage have a requirement for both that is as stable as if each of the couple needed both. In the marriage, the same rule applies. If the outgo exceeds the income, the upkeep becomes the downfall.

As more and more sub-economies are included in the mix, the requirements and the rule continue to control. One of the most insidious problems in any economy is the tendency for concentration of wealth. When wealth becomes more and more available to fewer and fewer, more and more economic structures become unable to meet the requirements that allow them to be active.

Brazil is noted for its wealthy farmers and its shanty towns. In the shanty town people are allowed to exist, but do not have the threshold amounts of income that allow them to contribute to the economy of which they are a part. Monopoly denies them the right to contribute to it. Without this threshold amount, the people end up doing the things that they can, and as they have nothing to lose, they tend to act criminally. Because of this, the wealthy have to spend money for police and security that is not needed elsewhere.

The Development of Demand – Percentages

The mathematical scissors creates a situation where all expenditures end up being a percentage of the total resources of the individual economic structure. There are examples in every activity. Some examples are clear; others more difficult to see, but every economic transaction or exchange is part of the activity of at least one economic structure.

We can find a clear example of the workings of the economic scissors as a matter of percentages when we review the activities of a factory worker who rents a home. In this case all the resources have been reduced to money, and money is used for all outgoes. Moreover, the resources come to the person at regular times. Since the outgoes usually follow a monthly cycle, and the incomes a weekly cycle, we will treat the income as being monthly to coincide with the outgoes. We will use an income of two thousand dollars a month in this example.

Before we can look farther into this example we know that taxes are paid before the worker receives his check. Other deductions are taken out as well. Health care and other requirements of an employer, as well as voluntary enrollments of the worker in programs that the employee considers most important reduce the available resources to the take-home pay. Since $400 should cover this expense, take-home pay should be $1600. This amount becomes one hundred percent of his resources for subsequent considerations.

When he receives his check, the first priority for a factory worker is to pay rent. Housing experts tell us that payments for housing should not exceed thirty percent of gross income, so the worker must pay $600 for rent. At this point his available resources are reduced from $1,600 to $1,000. Although the percentage of rent to gross resources is 30%, the percentage of rent to available resources is 37.5%.

Normally groceries are next and become the first priority after rent. In a typical month a normal family can exist on four hundred dollars. To be nourished may require six hundred. For this example, we will use the higher figure. Six hundred dollars ($600) is 30% of the gross salary, but 60% of available resources (which are now $1,000) at this point in the worker's mind. His available resources have been reduced from $1,000 to $400.

Now another requirement becomes the first priority. A worker requires the ability to travel to work. If a bus is available, this expense is minimal, but usually he uses a car. An average cost for a car amounts to about $200 per month. Now, the percentages are 10% of the gross income, but 50% percent of the available resources. After this expense, he has $200 of available resources left.

The next possible use for the money might require $300. This is only 5% of the gross salary, but is more than 100% of his available resources. Since he does not have available resources to continue, he is now out of the economy and cannot be considered when economists look at demand. In many cases, here are several possibilities for the use of the money. Some of these other uses require less than the remaining available resources. By changing the first priority to one of these uses, some other objective is accomplished. Another possibility is to hold the money until the following month and increase his available resources then by the two hundred dollars.

The factory worker is a simple example of the way economic demand is limited by resources. Even here, the picture can be complicated easily. By working overtime, the employee can increase his income. By owning his home free and clear, rent may not be involved. If the individual is laid off and cannot work, the example ceases to be valid. Because every change in circumstance changes the situation of the economic structure, the idea that any person, at any time can determine what any other individual can accomplish is laughable.

The mathematical scissors apply to each economic structure. All outgoes are a percentage of the income of the structure. What the outgo is called is immaterial. Social Security paid by the employee of a company cannot be distinguished from Social Security paid by the company so far as outgo of the company is concerned. This leads to an understanding that as either the absolute income amount or the absolute outgo price changes, the relationship of each outgo to all other outgoes also changes. When food (if food is the first priority) is priced at one hundred percent of a person's income, all other outgoes are set to zero. As the percentage needed for food becomes less, other priorities come into play.

Interaction of the Blades

Sometimes the effort to deal with one blade of the scissors, such as outgo, without observing how it affects the other blade such as income causes people to make idiotic decisions. A step-mother detested her step son. On the death of the father, the step-son became the heir to a house with a life estate to the step-mother. She had a manager rent the house with an instruction that only emergency repairs would be made. She received $700 a month rent and felt that she was doing well. What she didn't understand was that the proper rent for the house was $1,200 a month, but her manager could not rent it for that because the only people who would rent a house that was not maintained were those who would not be allowed to rent elsewhere. For the failure to pay around $3,000 dollars a year occasionally, she deprived herself of $6,000 a year regularly. It is not the amount paid that matters, but the difference between what is paid and what is received.

Two European companies had subsidiaries in the United States. When they merged, they decided that their American subsidiaries should be placed under one control. At the same time they purchased another subsidiary, International Salt, now Akzo-Nobel Salt. The CEO of American Enka, another subsidiary that produced rayon and nylon yarn, was placed in charge of all the subsidiaries. American Enka had about eight hundred customers, who bought significant quantities of their product. International Salt had every municipality in the snow-belt as customers, each buying a small quantity of salt. The new CEO felt that the salesmen for both companies should be paid equivalent amounts, even though the requirements for selling salt demanded far more work than the requirements for visiting a few yarn mills. Sales of salt plummeted immediately, and International Salt had its first loss ever. It was not what was paid that mattered, but the difference between what was paid and what was received.

A doctor left Alaska, where prices were very high, and relocated to North Carolina, where prices were very low. He sold his four room cabin in Alaska for $125,000, and wanted to buy in North Carolina under tax rules that allowed him to avoid taxes if he invested more in his new home than he received from his old one. He informed his realtor that he had to have a house worth at least $125,000, and his realtor realized that there were no houses in that area that were listed at that high a price. He had a friend who was considering selling his home, and the friend was expecting about $80,000. The realtor suggested listing the home for $125,000. The doctor bought the house. He paid forty thousand dollars for the privilege of not paying fifteen thousand dollars in taxes. It is not the amount paid that matters, but the difference between what is paid and what is received.

As we have previously said, the reason that the people of India are wealthier than the people of other countries is not that they receive more money. They do not. There wealth (shown by their ability to spend more of the money they have on movies than any other country) is created by the absence of high prices for those things that are higher in priority than movies.

As more and more sub-economies are included in the mix, the requirements and the rule continue to control. Despite the fact that young mothers use diapers, and old men travel, the overall mix of goods and services in the economy tend to develop an overall stable structure. As more and more sub economies are added to the mix, they tend to be subject to the laws of large numbers. When this happens, statistical inference becomes a realistic tool to enable observation of what is happening. Economic forecasts, statistical ratios, and other indicators become valuable tools to use in determining what decisions need to be made.

This applies only while the economy is relatively stable. However, most economies that are not on a war footing are comparatively stable and economic indicators are a major benefit to the economy. On the other hand, when these indicators are published, the values they study have already been acted upon and expired. They are reactive. To enable the economy to be stable in the future and to improve, proactive measures need to be used. This requirement parallels the difference between understanding values before exchanges, and understanding prices afterwards.

Values before a transaction are based upon whether the acquisition can fulfill an objective or not. Without objectives, then, the economy is like a train without rails. We continue to buy and spend, but without rational purpose for doing so.

A fairly simple example is the situation of a teenager when he has a new job. The teenager has few objectives of his own. There is no need for rent as the home is provided by his parents, along with food and most of his necessities. In such a situation, the ability to spend money without having a structure established, without having planned objectives means that the teenager is not bound by any restrictions that apply to other individuals. In such a situation a teenager must find his own objectives. The source of such objectives must lie in the environment in which he lives.

We talk of "role models." Sometimes the objectives that a teenager obtains are set by a wish to imitate a particular person. Among these possible examples are such people as Arnold Swartznegger. It is simple to follow his example. Any jackass and fool can do what he does, and our current attitude about what we expect of young people makes it easy for the youth to expect and receive approval of his peers for such actions. Others choose examples from the people where they live. It is easier for a girl to copy her mother, as she often has a chance to be with her, than for a boy to recognize someone who is a sound model. Often boys are kept away from male role models by mothers who tell themselves that "Boys need to enjoy their childhood." These mothers fail to realize that the man the boy becomes is no different from the boy they indulged.

Sometimes the teen obtains his objective from listening to advertisements. Some boys save money regularly to obtain a car, or some other advertised merchandise. Even though these objectives seem to be limited, the attainment of such an objective encourages development of a sound system of values.

Even though each individual transaction has its own relationship to the overall resources of the individual economic structure, there is a trend overall that develops into percentages that apply to the economy as a whole. The whole economic structure is made up of these individual economic structures. Young mothers need diapers, while elderly women need warmth and stimulation, but the overall number of young mothers and elderly women tends to be stable. The demand for diapers, then, becomes a more or less stable percentage of the total demand of the overall economic structure. Where the overall percentage of resources used reflects the overall requirements for a good or service, the economic structure will remain healthy. Where this is not the case, the imbalance of resources used for one purpose creates a hardship on those who are not part of that particular sub economy.

For example, our society has a good health record. At any one time, only one or two percent of the population is incapacitated. Most of the rest are working or enjoying their life. This percentage of need for health services compares to the ten to twenty percent of our expenditures on health. This imbalance reduces the funds available for other parts of the economy.

Such an imbalance occurred at the turn of the twentieth century. By establishing a monopoly, through the Standard Oil Companies, that could and did set the price of oil at a certain price, this company became a stable and somewhat secure place for people to invest. Since all the other forma of investment involved more risk, investors chose to place their money in that company and other needed activities found that money to accomplish those objectives became scarce. Some adjustment became essential for people to continue to live, and the antitrust laws currently on the books were enacted. To the extent they succeeded, the principles that were involved in the problem could be ignored. A similar condition exists today with health care, drug and judicial claims against the economy.

All health services are monopolies by the nature of the service. Each person uses a particular doctor, and health system. There is usually no shopping around, and second opinions are usually meant to confirm the validity of the first diagnosis rather than to allow a change of doctors. As medicare and other plans have thrown money at the health system, the health system has found ways to catch it. The result is that the expenditures for health services are far in excess of the need for health services. In a later chapter, this book presents the idea of limiting profits in such monopolies to no more than the government interest rate. When you get to that part, remember health care.

In some areas of the world, the imbalance of percentages between the needs of the people and the people who need them is dramatic. In the shanty towns of Brazil people are allowed to exist, but do not have the threshold income amounts that allow them to contribute to the economy of which they are a part. When people exist with fewer resources than what is required to allow mobility and security, they are unwilling to support the ethics that restrict them. Without this threshold amount, the people end up doing the things that they can, and as they have nothing to lose, the wealthy have to spend money for police and security that is not needed elsewhere.

Some Results of the Mathematical Scissors

One blade of the mathematical scissors is the recognizable price of a resource. That price is set by buyers, and the usual price is the lowest alternative price for the exact duplicate.

Yarn is a very competitive product. Some years ago, Saluda Yarns, a small manufacturer in Saluda, North Carolina, was in serious financial difficulty. The accountant who was helping them noticed that the amount of the loss each year was the same amount as the Social Security tax payment. The additional cost could not be recovered because the price of the yarns they produced was determined by the price charged by companies that did not have this expense. Competition in the market place causes many companies to be in this condition.

The effect of this condition occurs when extra costs are added that will not be recovered. Then an unfair situation arises. The extra costs will cause the less profitable business to fail. In the nineteenth century, bank notes from every bank in the country caused American business to constantly be sabotaged by people's inability to determine just how valuable money was when it was used away from the bank. Counterfeiting was rampant. Anyone with a printing press could print a note from a distant bank, and only later would the recipient know he had lost his money. By the simple expedient of taxing the issuance of bank notes, banks were stopped from issuing these confusing papers, and government printed money became the only legal tender. It is easy to see why extra costs will cause businesses to fail.

When extra costs arise from the bad decisions of inept management, there is no reason to feel concerned about the failure of a company. If the extra costs arise by action of the government, however, the people have a right to feel cheated. A company that has the choice of moving to Juarez, Mexico or El Paso, Texas will pick Juarez if it has any business sense. The materials, labor, and all other costs will be the same. In Juarez the company has only to pay the wages that correspond to take-home pay in El Paso. By moving across the Rio Grande, the business will save the cost of paying Social Security. The resulting price may possibly be less than an El Paso company would pay in total costs.

(Social Security has been one of the major causes of stability in the economy during the last fifty years, as we will discuss later. A custom charge equal to the Social Security tax on imports would not create any real hardship on any importer, but would mean an immediate ability of the government to reduce those taxes on employees in both countries. By making domestic production viable, it might easily reverse the trade imbalance.)

Another situation where Government rules have had a real impact on the business scene in the United States has been the urbanization created by the minimum wage.

Additional costs for transporting the product of a company means additional costs for placing the product on the market. Only those companies who are located near the market for their product can remain in business if transportation is a material cost. Depopulation of Nebraska is the direct result of the transportation costs for companies in that state. If minimum wage were reduced by ten percent for companies at least fifty miles away from a major population center, the problems caused by urbanization could be somewhat alleviated.

Overall the understanding of the nature of the mathematical scissors, and the results that follow each action are essential to a pleasant and useful life.

First Priority Objectives

What People Think Is Most Important

Psychologists have theorized that people value survival higher than security, security higher than belonging, belonging higher than family, and family higher than self expression. Experience in various cultures does not validate the order of this hierarchy of needs, but does validate that such a hierarchy exists. It is based on the availability of the resources needed to fulfill these needs.

In Bulape, Congo (once known as Zaire) there is no word in the local language for food or house, and natives there must use French to discuss these ideas. A person has only to go out to a nearby tree and obtain food, and shelter is easily provided by certain placements of vegetation growing nearby. Moreover, a house has a tendency to invite other animals who would like shelter, such as snakes and mice. If food is stored, the hot humid climate encourages mold, mildew, rot and rats. Not only are the usual needs for survival not the subject of any objectives, but security is not of interest either. The normal value of savings and thrift cannot apply in that climate

The first economic objective of people in Bulape, then, is not survival and security but the means of belonging to a group. Status, language, and means of communication, such as dance, are prized, rather than food or property. A similar situation applies in Brazil. Here the first priority involves Carnival, and the activities that culminate at that time.

(Remember our first caveat, that morality is not the subject of this book!) In such a place, one of the surest ways of establishing a secure relationship with the dominant individual in the community is to sell oneself to that individual as a slave. The Brazilians rejected their Emperor, Dom Pedro II when he abolished this time honored institution. Africa sold their slaves to each other (where there was a common understanding of the roles of both master and slave) and then to Europeans, who had no concept of the limitations of the system. This cross cultural exchange has continued to this day, without either thoroughly understanding the roles and relationships that are appropriate in the "foreign" culture.

Psychologists have inferred from the culture of which they are a part that survival and security are the primary motivations for economic activity to occur. By providing for these needs, where the culture is different and when they serve no economic purpose, the suppliers are encouraging war in an economy where the value is useful only for status. Status is easily obtained by everyone when this is the case, and coordination becomes impossible. The consequence is the destruction of any stable means for cooperation and the result is war.

It is not too difficult to realize that the infusion of money from oil in Nigeria, and Diamonds in Sierra Leone, have made certain people wealthy. Others with less ability to grasp the wealth that they have received have first resented and then fought for what they have. There is little need for the money in viable economy to provide what normally comes from the efforts of the local people. In this position, the objective that can be fulfilled does not include food, or material things. The battles that have resulted have been for status, not for any useful purpose.

Each individual economic structure determines what its first priority is. Many women spend time preparing meals, and enjoy the time spent eating. When the meal is finished, and they are complemented on it, they feel that their efforts have been warranted. Their first priority needs have been fulfilled.

Their guests, however, may have attended the meal as a part of a conference. To them the meal is only a pause in what is their first priority activity. Even while the first customer is eating the meal, they may be conversing on their real first priority activity by continuing the discussions of the conference. While relationships sometimes require concern about the first priority of others, unless it happens that the activities of all the parties coincide exactly, there is no time when two economic activities have the same priority.

When BASF manufactures thread, its first priority is satisfying the objective of the weavers. When the weavers make cloth, their first priority is satisfying the objectives of shirt manufacturers. Shirt manufacturers try to satisfy the objectives of wholesalers, then retailers, and then the buyers. This system of priorities in the individual economic entities does not carry over into the overall economy. Here, the first priority (the objectives of the buyers) is matched by the other five priorities, and the manufacture of thread becomes the sixth. Anticipation of the requirements of the first priority users of goods and services becomes more and more difficult as the priorities get farther and farther away from the first priority status. This distance from the end use means that when a change in the economic activity level occurs the lower priorities become more and more at risk of being affected by that change. An economic slowdown (in the above example) can be expected to cause layoffs in the thread mill first.

BASF, making thread, and weavers, wholesalers, retails and consumers have first priority objectives that require different goods and services to accomplish their goals. With this diverse list of goods and services, it would seem that there would not be a common economic environment. However, over time and given a constant situation, the overall economy is very stable. Young mothers use diapers, and older women take cruises. The continuing replenishment of goods and services that both consumers require averages out. They are part of a whole economic environment that is the sum of all of the component economic structures.

Where demand is a combination of the requirements of one part of the economic environment, we can determine it by adding up all those component parts and determining how much will be required. For instance just so many diapers will be needed each week. We can set the manufacturing of diapers to produce that amount.

But demand is not always a function of a specific need. The first cars invented were not considered useful vehicles but signs of high status and wealth that displayed how affluent the owner was. That type of demand paralleled the demand for Coco-de-

Mer in India before the advent of western traders. This double coconut was rare, and found only when the sea washed on up on the shore. Its rarity gave it value as a status symbol. Individual nuts brought as much as several years pay when delivered to the wealthy. English sailors found the source of the Coco-de-Mer in the Seychelles and brought a boatload to India. When asked where they found so many they made the mistake of telling the buyers that they grew on Coconut trees in the Seychelles, and the value disappeared immediately.

With this type of demand, the value goes up as the price goes up. Car makers started with this type of demand. Certain cars, Farraris, for example still do. But as more uses became apparent, other types of demand developed, until currently the mixture of demand for a car develops into a part of the negotiation when each car is sold.

Toy manufacturers plan their Christmas purchases during the prior January. At that time the ideas about what people will buy eleven months later can only be conjectured, yet firm commitments to purchase certain toys and not purchase others have to be made. The manufacturers can only gear up to produce the toys that will be sold if they have firm commitments. This period of time from January to Christmas places both retailers and manufacturers at risk for changes in people's preferences. If they don't take this risk they are out of business.

Experience has taught these businessmen that there are ways to reduce this risk, but it will always be there.

The Difference between First Priority and Lower Priority Objectives

This discussion of what comes first is important because the first economic consideration takes precedence over every other objective when the mathematical scissors comes into play. Every other economic value is set aside when the first priority objective must be met. As the absolute price of the first priority objective rises to the point that total resources cannot meet the price, the individual is forced out of the economy of which he is a part. Either he must abandon that objective or must somehow act to obtain what is needed to satisfy his first priority need. If he does not abandon the objective he will abandon the economy. He will rebel against it if he is unable to satisfy his objective. At times in every society, starvation and drought may make resources so scarce that no amount of effort will obtain them. When this happens, either the people die or migrate. Mexican emigration to the United States can easily be explained by this process.

First priority objectives often involve avoiding things that are feared. (Again we must remember our first caveat. What we are discussing is not moral, but it is real). Alcohol, drugs, tobacco, and food are the most frequent and most sure commodities placed on the market. Initially, each has the ability to eliminate boredom. Later, the fear of the consequences of withdrawal from their use makes their value to the user greater than anything else. Alcohol was the basis of the rise of the Mafia during prohibition. The British gained economic control of China during the opium wars by supplying opium to the Chinese. Tobacco provided the value that made Virginia able to survive, and food, in most cultures is the only sure need.

It is said in military circles that the ability to tolerate boredom is the most important attribute of a good soldier. The same problem occurs with fireman who must spend more time waiting for a fire than fighting it. People think of the military as exciting and full of activity, but the majority of a soldier's life is spent in waiting for something to happen, and a fireman works only when there is a fire. Man is not intended to sit still. The officer who does not provide some activity during the wait will find his charges doing something just to "kill time." Avoiding boredom then is the first objective of most humans. If it cannot be avoided, substitutes such as alcohol or drugs become attractive. Then the use of overstimulants (alcohol, drugs, tobacco) becomes a problem. Once overstimulants take effect, their characteristic as a first priority objective makes them so important to the user that everything else becomes valueless. Efforts to eliminate these problems must provide relief from fear of withdrawal and relief from boredom before any possible solution will work.

First priority objectives are important because no activity occurs with any other priority. A person compares his resources with his ability to attain his first priority objective and decides that there are enough resources or that there are not enough resources to accomplish that aim. Once that decision is made, and acted upon, the first priority objective is satisfied and another objective becomes first priority. Economic activity is a succession of transactions each satisfying some first priority objective. Every economic transaction is an individual action. The appearance of mass transactions comes from the transaction often having multiple quantities, and the common practice of waiting to complete the transaction until others can be done at the same time.

Second priority objectives are plans that are waiting in the wings, or are necessary to the accomplishment of first priority aims. Priorities beyond that are successively less important to economic activity, but as resources are perceived to be increased, they are advanced accordingly. A tax cut to encourage spending can be looked on as a means of increasing the priority of second or lower priority objectives by making the accomplishment of them more possible.

Business and Coordination

If a company has a business of wrecking houses, it will wreck as many houses as it is paid to wreck. A business that builds houses will build as many houses as it is paid to build. But the two companies cannot be working at the same site at the same time. Either you are building or wrecking, but not both.

One of the most critical objectives of any person, business, or other entity is to obtain cooperation with other entities so that their activities are not at cross-purposes with others at the same place and during the same time. The most elemental form of obtaining this coordination is to fight it out, and the winner of a fight determines what is to be done.

Historically this is the standard method of resolving differences. It is also the least efficient method.

Coordination involves making allowances for the satisfaction of all objectives that are needed. When the winner of a fight coordinates activities, those objectives that he knows about are satisfied, but there is no way for him to understand all of the objectives that are important to everyone. As a result, many important functions of society are overlooked. Such a situation occurred during the life of the Soviet Union. A farmer might need fertilizer, but approval for obtaining it meant that he needed to go through channels that might have reached as far as the Kremlin. The same circumstance applies now to medical insurance. Insurance companies require that they approve doctor's treatments according to their rules. To satisfy those rules requires so much time that treatment time is reduced. When patient time is reduced each patient must pay more to provide the same income to the doctor. Such a situation automatically increases medical costs, with no such increase in service.

When coordination is limited to those items where conflicts can occur, the interference of the coordination with the efficiency of the activity is reduced.

The priority of any objective, including coordination, is a major factor in apportioning resources.

Warehousing and Banking

Diapers are needed at specific times. The objective of their use is to avoid an aroma that is somewhat unpleasant. This first priority objective occurs at specific times and requires a quantity of one. However, it would be inconvenient to have to go to the store and buy a diaper each time one is needed. To avoid this inconvenience mothers buy the diapers in quantities of dozens. This purchase is a secondary transaction and involves the exchange of one type of resource for another. This is a change in the form of a resource. The resource involved now is in the form of a supply of diapers, rather than in money. Warehousing, the acquisition of a supply (resource) for future use, is an integral part of economic activity, just as any other change in the form of a structure's resources.

West Point Pepperel manufactures cloth in thousands of yards per day, but you will never be able to purchase a yard of cloth from the company. Other companies buy the cloth in large quantities from West Point Peperrel. These companies in turn will not sell cloth to the individual. Instead they sell it to retail stores, who have the direct contact with the customer. To manufacture cloth efficiently, West Point Peperrel must make far more cloth than it can efficiently sell to individuals. Moreover the cloth is concentrated in one style during the manufacturing process and people wan t only a little of any one style of cloth. The distributors take a portion of each style and mix it with many other styles, so that cloth retailers can purchase a smaller quantity containing many different styles. At each point in this process, warehousing the product is essential.

We can liken warehousing to damming a stream. That stream may be a steady flow stream or one that has a flood at intervals. By damming the stream we accomplish three things. First, it assures a steady flow downstream that will take care of what is needed there. Second, by providing a place for much water, the dam assures a continuing supply. Third, when supplies become short, there is a place to store additional supplies from other sources. Economic stability has a similar need to even out flow, prevent devaluation and make temporary supplies available.

Washington State produces apples. By constant refinement of the warehousing of apples, they store enough apples to sell from their warehouses all year long. If every person in America ate an apple a day, there would need to be 365 times 281,000,000 apples stored there during the year. This volume allows producers to concentrate their efforts on providing apples, and allows for efficient production. Not only does warehousing benefit the consumer, it makes quantity production possible as well. The economies of scale that reduce the resources needed to fulfill objectives can only occur with quantity production.

Warehousing holds a resource for future use, but while it is stored is an inactive resource. This is applicable where a resource is a thing that is produced for only one use. Where a resource is a location (in time or space) or an indefinite resource (such as money) instead of a specific thing, such as diapers, the warehousing of the resource may be used while it is stored. Land which is superfluous for a particular crop may be used for another crop. Labor that is not needed for current production may be used for other purposes.

Banking differs from warehousing by allowing the use of the thing being warehoused while it is stored. Money is the most easily recognized subject for banking. Money is not a resource that can only be used for one purpose, and it can be used regardless of who owns it. Banks collect money from many sources and hold that money until it is needed. Whenever resources (income) exceed outgo, all the money that is available is never needed at one time. This surplus, if available to those who are momentarily in the opposite situation, can be used by others. To encourage people to allow others to use the money that is momentarily stored, banks pay some interest to those who allow them the use of their money. The amount they pay is small.

By loaning the money out to consumers, a bank allows it to be useful even while it is stored. The bank loans that money at a higher interest than it pays out. This difference between the interest they pay for money and the interest they receive on their loans is the income that it has available for its own use. That difference is limited by the uses for which money can be loaned and the available supply of money.

When banks began to offer additional services, such as a local branch on each corner, there were two ways in which they could pay for the additional costs of those services. The first was to generate more business, the second to reduce the costs of other services. When neither of these options was available, the bank failed or merged with another bank which had surpluses. Usually the merging bank reduced the services to a more sustainable level.

Other things can have the ability to be used while they are in storage. At one time the United States had a surplus of wheat. To encourage farmers to reduce production to match the requirement for wheat, congress developed a soil bank. Farmers were paid to not produce wheat. With land lying idle, these farmers changed to other crops, and production of these commodities soon exceeded the requirements for them. The soil bank is no longer active because the use of land as a bank did not account for the surpluses that occurred in other commodities.

Labor also can be banked. Employment security payments are available to surplus employees when layoffs occur. By these payments, the surplus employees remain a part of the economy and continue to be consumers. Careful balancing of unemployment benefits is required to make this system work, however. Employers who need workers may not be able to entice surplus workers back into the work force if they receive more income while unemployed than the new employer can pay. The GI Bill that provided education after World War II benefited both the student and the business world that was trying to readjust from a war footing. Returning soldiers were included in the economy, but were warehoused until the economy found a place for them.

There is an additional problem when labor is banked. People do not react well to boredom, and the ability of the unemployed person tends to atrophy when is not used.

Efforts to encourage schooling to unemployed workers are aimed at countering these problems.

Money is the most prevalent commodity to be banked. Money is a substitute for recognized value, where that value is determined by the holder and recognized by the community at large. By exchanging other resources for money, the acquirer of the money can change resources that are useable for only one purpose to resources that are generic. During the time when that resource is not needed, it can be warehoused in a bank. The bank can in turn allow this resource to be used for other purposes.

There is a downside to this. Because the bank has available resources it tends to dictate the answers to the question of who will use the money, when and for what purposes. Banks usually try to assign the money appropriately, but stability and self-preservation requires that only viable uses receive their consideration. Moreover, when stable and sure returns can be found in one application and necessary uses are less stable, loans tend to gravitate toward the stable application. The costs of the less stable application are increased by the need to acquire the use of funds. Farms are inherently unstable. The weather changes from year to year. Oil production and medicine are more stable, and acquire funds that are needed by the farmers.

The Mechanics of Warehousing

People who live on the street are not able to warehouse many things. The homeless usually have a shopping cart or bundle and this has only the essentials that the individual must have to live. The economic structure of a homeless person who survives requires knowledge of the vicinity in which they live and sources for food and shelter that are available to them. While they will eat as much as possible at a soup line, the inevitability of hunger requires that they eat as heartily as they can but that only what they have eaten can go with them when they leave. Frequent access to small amounts of food is an element of their economic structure.

Economic structures of fertile tropical areas have a similar appearance. While homeless people can only use small amounts because of lack of space, the tropical structures use only small amounts because food sources and shelter are readily available and reliable. Between these two extremes, the structures of other areas usually use some type of warehousing. Without a location to store what is needed, warehousing cannot exist, and without a reason to maintain a supply, warehousing is unnecessary. Where warehousing does exist, it takes many forms.

Farms in Norway tend to be devoted to dairy operations. Milk is a product with a short production cycle. It will spoil if stored for a whole winter. Moreover, if milk is stockpiled, and the cows are not milked continuously, the cows will stop giving milk. This condition means that milk is not usually warehoused. However, the cows must eat during the long winter, and it is essential that food for the cows must be stored.

The short summers are usually spent cutting hay and storing it for the winter. Failure to warehouse enough hay will result in loss of milk late in the winter, and need for support from those who have stored more. Here the warehousing of hay is the warehousing of milk. The proverbs of lands with this economic structure emphasize thrift and putting aside for the bad times. Any other method of living, if tried in this climate will fail.

Such proverbs do not apply where food is plentiful and readily available without storage. To store food where it will spoil immediately is an exercise in futility. Economic structures tend to reflect the realities of the environment in which they exist.

There is an optimum amount of anything that needs to be stored. To buy ten thousand shirts when a person can only wear one at a time would be foolish, so people usually only buy enough shirts to fill their perceived needs. If laundry is done once a week, eight shirts would be sufficient, one to wear on washday, and seven during the week. As other considerations apply, such as dress and work shirts, the supply stored will increase, but the quantity owned will be limited by the space available for storage.

The quantity for any rational individual will be small. Usually that amount can be called the minimum quantity.

Shirts are usually bought in quantities of one, and for most adults, the optimum purchase amount will be one. However, children often outgrow their clothes at least once a year. When this happens, back to school purchases often equal the minimum quantity. Optimum purchase quantities can vary widely. Sometimes opportunities to purchase quantities of an item will arise and large purchases are in order. In June, Bing cherries are in season. If there is storage available in a freezer, large quantities will allow savoring the taste during the off season. Large quantities bought without freezers require immediate use.

Stores often sell products in different quantity packages. Diapers can come in twelve's, thirty-sixes, or even hundreds. The price per diaper can be different in the different packages. If there are storage places for the maximum quantity, the package with the least per diaper cost should be purchased. If there is not enough storage for that quantity, the purchase will need to be one of the lesser quantities, even though the total price is greater.

Whatever the item, the minimum quantity and the optimum purchase quantity will bring the amount warehoused to the maximum quantity. These three factors are easily seen in sound warehousing. The minimum quantity will be large enough not to give out at a crucial time. The purchase quantity should be the most that can be stored and paid for and the maximum will be the most that is on hand at any one time.

If a mother uses seventy diapers each week, the purchase of seven hundred would not be out of line. Diapers are produced however in quantities of millions, and no mother would want to have that many diapers on hand.

This fact is the basis for the wholesale and retail sectors of economies. Factories can produce products (such as diapers) cheaply only if they are produced in large quantities, but users can only use the same product in small quantities. To get the product from the large quantities manufactured to the individual user requires warehousing at different levels. The manufacturer sells to a limited number of wholesalers. These wholesalers split up the product and combine it with other products to sell to retailers, and the users find the product warehoused at the store when they need it.

Demand for any product is affected by the ability of the consumer to store enough of the product to meet the objectives which he is trying to accomplish. The resources of the retail store consist of its being able to store the proper amount for their customers. Its purchases (demand) and expenses relate to its objective, and are different from the demand of their customers. The warehousing requirement of the store is much larger and has an entirely different nature from the warehousing requirements of its customers.

Each economic entity has unique warehousing and storage abilities and requirements. No other entity has exactly the same requirements, but these requirements affect the needs and subsequently the demand that that entity adds to the overall economy.

Interdependency

Economists have to explain everything before they can explain anything. This is a truth that makes little sense to the average individual, but is true nonetheless. Every economy has an organic structure that can never be stopped for study. It would not work if it stood still. Even if only a part of it were not working it would not be fully effective. Doctors have to work with the body the same way. During an operation every function of the body must be maintained. So it is with economics. Even when we isolate a function of economics, it may have different effects on different parts of the economy while it is being described.

Money, for example has many aspects. The simplest is as a medium of exchange. By combining or dividing the available money, a value can be quantified. Exchanges occur because each party of the exchange values the resource which he is giving up less than the need he is fulfilling. Because this is an either/or decision on the part of each participant at the time an exchange is contemplated, a range of value develops. If I choose to believe that I can give up an amount of resources equivalent to a specific valuation, and the seller believes that he also can make such an exchange, a trade will occur. By using money as a measurement of value and a resource, I might say that I will pay up to $100.00 for a hypothetical purchase. The seller in this case may be willing to sell at anything over $50.00. The value of the exchange is a range between $50.00 and $100.00. When an exchange occurs it will be at a specific price within that range, but the value to each is dependent upon his own valuation. Each person has valued his own contribution to the exchange, and the values are usually expressed in terms of money. However, that value is not a certain amount of money, but a certain range of value. After the transaction the price can be expressed in money if money was involved. Price is never uncertain.

Unless there is a common benchmark, however, that can be used to compare the item brought to the exchange, real value is hard to determine. This common benchmark is the understood value of a common commodity. John Keats wrote about the experience of Wendell Fertig on Mindanao during the Second World War. Quite a bit of the book, "THEY FOUGHT ALONE," deals with Fertig's establishment of a sound monetary system that flourished among the Filipinos. Fertig used as his commodity the value of rice and corn, but established a set relationship between the two commodities, so that neither was able to create an arbitrage situation between them. Despite the military control of Mindanao, the Filipinos, even the Moros who are such trouble now, used the monetary policy established by Fertig, rather than the Japanese money. When the war was over, the Americans destroyed this currency.

As Keats writes;

> "It was during the extirpation of the Japanese, and in the months that followed the victory, that the war was lost in the Philippines. It was lost with the best of intentions, inadvertently, through pity. It began to be lost on the first day that an American soldier – one of the new Americans as men of the Liberation Army -- looked up from a letter he was writing home to see a ragged, barefoot woman smiling on him like a shy angel.
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> "Good noon, sair," she said. "Do you have laundry? I will be the one to wash for you.
>
> "The soldier was startled and pleased to be called sir and to find someone willing to do his wash. For two Years in the jungles to the south, he had boiled his khakis in- an ashcan, stirring them with a stick and the only thing anyone ever him in the Army was Mac.
>
> "Laundry? Hell, yes . . . I mean, sure, lady, sure. How much do you want?"
>
> The woman bit her lip- The soldier did not understand that she was not a professional lavandera, and that she was offering a gift of love.
>
> "Nothing, sair," she said. "Please, enough soap to wash your clothes and mine, only.'
>
> "She had not intended to ask for soap, for she was to beat the clothes clean on stones in the riverbed, but perhaps the soldier felt he should pay something, and if that was the case, she would make him feel less obligated by suggesting the soap.
>
> "Jesus," the soldier muttered to himself.
>
> "He rummaged in his barracks bag and handed the woman a bar of thick, yellow army soap. The woman's eyes widened in utter disbelief. She groped for words to tell the soldier that this was far, far too much, but he, guiltily feeling he was getting his laundry done far too cheaply, pressed the soap into her hands. He gave her his soiled uniforms, socks and underwear, and asked when she would bring them back.

> 'This day, sair," the woman said, close to tears. "I will return back to you."
>
> The soldier watched her leave, wondering if he would ever see his clothes again. He shrugged, and returned to his letter-writing. The woman, who hid the miracle of an entire bar of new soap in among the clothes, walked quickly from the army bivouac with her heart going like a tiny a hammer. One tiny sliver of soap would have been enough. With the rest of it, she could buy ....
>
> Why, with that much soap, there was almost she could not buy from the hidden stores of the Chinese merchant. Everything she had heard about the Americans was true- They were indeed the unselfish benefactors of the Filipinos. She thanked God for the Americanos. The destruction of the barrio of her cousin had been an accident, and she had said so at the time.
>
> But when the woman arrived at the riverbank to wash the clothes of her Americano, her view of the Americanos was subtly changed. From another woman, she learned that one Americano had paid five pesos for his laundry to done. Five pesos! It was as much as a man might earn in week!"

This woman had a picture of the value of soap and the value of a week of a man's time. Suddenly the relationships that she pictured as realities were destroyed by the influx of money that had little value to the soldier. Her expectations of stability in the valuation of everything were shattered, and the replacement for those expectations did not fit her community and life.

This is an example of the disvaluing of money. Money which has been devalued retains a relationship, even if it is a different relationship, to a standard commodity. Disvaluing means that money is divorced from any commodity.

When that norm was destroyed by the indiscriminate spending of the soldiers, the monetary system was destroyed. To this day the economic system of the Philippines has not been rebuilt. The wealthy take from the peons, and demand services in return without paying adequately for them. This same result has historically been seen many times, from the daimyo of the Japanese, to the haciendados of Mexico, to the mirs of Russia, and the feudal organizations of the so called dark ages.

Disvaluing money is a major cause of wars. It is not necessary to point to the German economy just prior to World War II. The inflation and disvaluing of the mark caused such distress that ***any*** alternative to the situation was preferable to its continuation. I have emphasized the word any in the above circumstance. The German people accepted the Nazis, not because they approved of their activities, but because the situation demanded some amelioration of their difficulties, and the Nazis were available.

The opposition of the Somalis to western assistance during a famine was caused by disvaluation. Farmers, who relied on the sale of their wheat, could not live because relief efforts were directed specifically to their markets. No farmer can sell wheat where it is being given away for free. The economy could not continue while accepted norms of economic activities are destroyed. These accepted norms of economic activity constitute the economic structure. In the story above, the accepted norms included a value for soap and for labor. In Somalia, the accepted norm was the value of wheat.

Different commodities have been used for monetary backing throughout history. In colonial Virginia, that commodity was tobacco. It was guaranteed that tobacco could be sold in England, and bankers in England would establish accounts that could be used to purchase and ship what the Virginians needed. To ship English pounds to America, when trading could just as easily be conducted in tobacco, was a foolish waste of shipping space. Not only could tobacco be easily exchanged, but where large quantities were needed for the exchange the seller would accept claims on the buyer that would be good for a certain amount of tobacco. Such claims became money that was backed by tobacco.

Tobacco did not need to be transferred to be used as money. A recognized claim to the tobacco, evidenced by a chit, note, or memorandum could be transferred instead. The chit, note or memorandum served the purpose of money as well. Claims to the right to use money, evidenced by paper recognized as such, are as valuable as the commodity itself.

It is interesting to note that Virginia and Massachusetts were the hotbeds of the American Revolution -- because parliament required payment of necessary official documents in English money. (Massachusetts differed from Virginia because it was engaged in trade with countries that were officially off limits to English subjects. They had plenty of money, Spanish money, but would have been put in jail if they used it). The states where commercial centers had been established sufficiently to use English money, New York, Pennsylvania, and South Carolina, did not fully support the Revolution until atrocities forced the issue, -- in South Carolina, the massacre of surrendered soldiers by Tarleton, In Pennsylvania, by the plight of the farmers on Brandywine Creek after that battle. Where no such atrocities occurred, the Revolution was not supported. In New York the delegation to the Continental Congress abstained from voting for independence to the end.

Some commodity becomes a benchmark in each individual's organization of their own life. A good example of this is the factory worker's use of the wage that they receive. Because they know that they will work so many hours and receive so much money for the time they spend on the job, they are able to use these realities to establish their ability to accomplish so many goals. Certain goals are inescapable, food and shelter are usually required, but knowing what resources are available to them allows them to determine whether and how many resources can be allotted to each goal. Within the individual economic structure, the benchmark provides a reference point.

That same reference point establishes the relationship between the individual and the larger composite economic organization. The buyer of a factory worker's time is not paying for the time, but for what that time can accomplish. The fact that he is required to be paid a certain amount for each hour, and can determine what that hour will produce allows him to determine his cost. He uses that cost to determine the basic price that he needs to charge to stay in business. For a factory manager, the cost of time becomes a reference point for the price charged to his customers. The price of labor then can be said to be the backing for money.

History seems to bear this out. In 1932, America set the price of gold at $35.00, but made it illegal for people to own gold as a commodity. Those who used gold could fill their requirements for use, but the ownership of gold in quantities was made illegal. Individuals could not use gold as a benchmark for their economic organization under such circumstances. Labor was not the benchmark, because labor had little value and could not command the price needed to have that value. During World War II, labor became scarce. Every person was employed. Each person had a supply of a constant, stable and valuable commodity (labor) then. They had a recognized value for that commodity and knew what it was worth. Because no other commodity had a set value in relation to the dollar, the minimum wage became the backing for the dollar.

The ultimate value of any money in each person's life is determined by all the person can exchange it for. This would be cumbersome in practice, but by having a single commodity, such as labor, backing the currency, all other needs can be compared to that commodity and their value determined by reference to it.

Proof that the minimum wage is the backing for the dollar came during the presidency of Richard Nixon. The minimum wage was increased from one dollar per hour to one dollar and sixty cents in the spring. Immediately prices began to climb. Price controls were instituted, but did not work. Only after a summer of escalating prices did the price level stabilize. That stability came when prices were sixty percent higher than before the change. An increase in the minimum wage becomes actually a devaluation of the dollar.

All commodities have drawbacks as backing for money. Gold becomes concentrated and unavailable as successful sellers take payment in gold. The United States in 1932 was said to have most of the gold in the world stored in Fort Knox in 1932. With this money withdrawn from the financial cycle, that cycle ground to a halt, and the great depression was the result. One of the advantages of the minimum wage as a backing for the currency is the inability of anyone to corner the market of labor. Because every person has twenty-four hours each day, as long as labor is needed, everyone will be able to make the exchange of their time for currency, and participate in the economy.

On the other hand, the mathematical scissors prescribes a maximum revenue that can be expected when prices are set by the alternative sources that are available to the consumer. With the minimum wage applicable both in the major markets and in the distant cities, the additional costs required to transport the product to the market increase the outgo of the economic structure located away from the market. The result is that goods and services that are not "site specific" (not capable of being done at any other place than the site – such as a supermarket cashier) physically locate themselves to the major markets. As this continues, Nebraska becomes depopulated, the minimum wage law among the Castilianos of New Mexico is ignored, (people there are willing to work for as little as fifty cents an hour) and jobs paying near the minimum wage cause low wage individuals to move to the inner cities. Urbanization is a direct result of minimum wage laws that are not ameliorated by such transfers as social security, tourism and welfare.

Lower Foreign Wages

One of the hardest concepts to understand within an economy is that the price levels are determined within the context of each economy without reference to any other economy. Evidence that the concept is misunderstood is found in the statement, "Mexico (or any other country) has an advantage because it has lower wages."

When textiles moved from New England to the South, the wages that the mills paid were only slightly higher than the prevailing wages within the same area. Owners of manufacturing plants did not spend the difference between the southern wages and the much higher New England wages in the South. To do this, the additional demand in the South would have raised the costs of their workers and caused them to ask for more money. The savings that the manufacturers realized from the wage differential were spent in New England, where the wage level was already high. This additional spending increased the economic activity in New England, so that the loss of jobs through moving the textile mills was offset by the additional activity created by additional funds available in the North.

Should the movement of jobs to another country, however, eliminate part of the costs of doing business, a distinct advantage arises. Lack of social security requirements in Juarez, Mexico makes the manufacturers who move there avoid El Paso, Texas. By avoiding these costs, the competitive advantage of operating in Mexico becomes insurmountable.

Economic Structures

A and B became partners, (C). A owed thousands of dollars, while B had a great deal of money in the bank. C lasted only a short time because its economic structure could not reconcile the difference in attitude between A and B.

D and E got married (F). D wanted to invest and have funds available for future use, while E had never had the need for money, and spent money without caring what it was for. F developed such friction that the marriage fell apart.

A child was born to a Mende couple in Africa. Its resources were its parents caring for it, and its needs included food, shelter, and a community of caring adults.

Each of these descriptions deals with an economic structure. Economic structures exist wherever people exist, and they have many different forms and organizations. There are, however, some common elements of all economic structures. They contain and are involved in obtaining resources, attaining goals, and are organized around a set of ideas of the nature of reality. Moreover, they involve actions on the part of the participants.

The Importance of the Economic Structure

The economic structure is the real basis of economics. Every transaction involves at least one structure, and every transaction depends on the nature of the economic structure involved. Most economists are interested in the transaction, since the transaction is a measurable quantity. A price has been set. The values that exist before that transaction occurs, however, determine whether a transaction occurs or not. These values are a function of the economic structures involved. Study of the transactions that ensue is dependent on the nature of the structure.

Tissue paper is normally found near toilets. The tissue paper that is available today is not the same paper that was there last year, yet last year there was tissue paper in the same place. Such a product is part of the economic structure of the owners of the toilet. Almost none of the items in use today were there last year, and even houses and automobiles are replaced at different times. Such is the nature of organisms, and economic structures follow the rules that apply to organisms. Organisms are complex, and include many suborganisms. The human body is an organism, and includes an organism called the heart, another called the lungs, as well as many others, clearly defined, with each doing its own job for the benefit of itself and every other part of the body. In the human body the blood, nerves and hormones act as connecting points between the individual cell and the rest of the body. Given that money has a benchmark quality that is recognized both by the individual and the rest of society, money serves a function similar to blood in the economic structure. Information compares to nerves, and relationships compare loosely with hormones.

The nature of an organism

The human body is an organism, as is a fish, or a fungus. Each of these, no matter how different from the others, has common characteristics that belong to all. All of these organisms exist in a particular environment. Each is made up of many specialized parts, which may be organisms as well. Each requires nourishment, and a means of disposing of what is no longer useful to it. Each retains an organization that is stable and defined. Each renews itself by disposing of parts not working and building replacements. Each leaves a seed, spore of other reproductive body that enables replacement when the organism no longer can function. The nature of an organism enables a person to identify it as an organism, and differentiate it from any non-organic material. The characteristics of an organism require that all the items mentioned above need to be present.

An economy exists in a particular environment. All of them have many parts, which may be economies as well. They flourish if there are resources to nourish them, and produce waste, which must be disposed of. Economies are stable with definable limits. An economy recruits new businesses to replace failures. Books define the activities of economies and allow replacements. The nature of an economy can enable people to recognize it as an economy, and differentiate it from all other economies. All the requirements that apply to an organism are present in economies. To study economies as if they were organisms is appropriate, and to be desired.

Boundaries of economic areas are also not clear. People who are culturally part of southern influences are to be found in Ohio, while a manufacturing mentality typical of more northern influence can be found in West Virginia. Even within economic areas, various cultural backgrounds apply to different economic structures. The most glaring are such cultural divergences as those arising from migrational origins. People arriving from a Northern European location require that food must be saved and stored for winter use. Failure to do this is a sign of sloth and worthlessness. People from an equatorial location know that storage of food brings vermin and rot. Such an idea to them means that a person who stores food is causing disease and problems. Where these different cultures exist together, the mutual antagonisms involved must be resolved, or ignored. To demand adherence to either by the other is foolishness.

On the shores of Lake Victoria in Africa there are tribes who exist on fish taken from the lake. There are tribes who live alongside these tribes who exist on cattle and cattle products. These tribes have separate economies. In western Africa, the Mende are agriculturalists, while the Fulani base their economy on cattle. The Mende welcome the Fulani when they travel across their land because the manure fertilizes their crops. These are separate economies, but they have a symbiotic relationship. Farmers in America typically operate separately, but cooperate in marketing and cooperative buying. Each is separate, but exists in a cooperative economy. A corporation on the other hand, is a full fledged economy on its own. Here the sub economies are coordinated to act in an efficient manner.

Organisms and Nutrition

A physical body ingests food, processes it, distributes it to the places that need it, uses it and disposes of it. This is true of economic organisms as well. A cottonseed is useless by itself. Unless it is put in the ground to grow, or crushed for meal or oil, there is no value in it. When it is put in the ground to grow, there is a possibility of future value, but only as time develops it. When it is grown and cotton bolls produce the fiber, there are competing needs that provide more value, but its real value is still in the future. Part of the cotton is woven into shirts, and at this point there is potential value. If the shirt reaches the hands of a person who can wear it, the value finally arrives. Value derives from the usefulness of the item. Until the product becomes useful, only potential value exists.

Value deteriorates. Use of the shirt causes wear and tear, and eventually the shirt becomes useless again. At that time there is value in disposing of the worn shirt. The replacement of the shirt follows the same course, from usefulness to value and back to uselessness. The product cycle is a linear cycle that has a beginning and an end. It appears to be continuous, because each shirt when disposed of is replaced by another. However for the individual shirt, the value cycle goes from beginning to end, from worthless, to valuable, to worthless again.

The organism continues, however. Blood is a distribution system that takes the product of digestion to the place where it is needed in the body continuously moves through the body, and disposes of the waste. Money is similar to blood in the economic cycle. Economists frequently talk about the monetary cycle. I pay you, you use the money to pay someone else, and after many transactions some of the money which you have spent comes back to me. This continuous cycle is similar to the blood in the body. Like blood it is most useful when it continues to flow. When blood stops, it congeals, and the constrictions that occur because of the stoppage become life threatening.

The same holds true for an economy. While money is circulating, it is useful. When amassed in a monopoly. Or anywhere not available for use, the economy is threatened.

There are many points where the linear production cycle touches the circular money cycle. That subject is well worth a separate chapter.

The histories of many countries bear this out. China has a long history, and in that history there is a continuous alternation between the concentration that develops from monopolies in a stable situation, and the chaos and revolution that occur because of the need for relief from such concentration. Mexico and other Spanish-American countries have the same pattern of stability and chaos. England had its stability during the Hundred Year's War, anarchy during the war of the roses and stability under the Tudors, followed by the English Civil War. Where stability has prevailed for long periods, an inflexible social system has developed that restricted everyone to specific roles. Such a system arose in Japan. Prior to the opening of the country to the west in 1854, the country was divided into Daimyos, each of which developed a place for every citizen. If the citizen chose not to fit into that role, he was subject to death.

Organisms must eat, and economic organisms as well must take nourishment. The time to take nourishment, however, is not continuous, but intermittent. We eat breakfast only once a day. At the time for breakfast, an egg has value; the rest of the time eggs are worthless as a breakfast food. Stability allows us to assign value to eggs throughout the day, if there are no eggs available for tomorrow's breakfast. The value of those eggs however has a maximum. We will not buy fifty dozen eggs, when we will only eat two each morning.

We will acquire the eggs we will need, however, but the method of acquiring those eggs may vary from structure to structure. You may raise chickens, while a friend will buy eggs in the grocery. By choice your acquisition of eggs will be separate from the economic structure around you while his is part of that economic structure. There is a transaction to acquire eggs in both cases, but the value takes a different form.

That value is a determination of the ability of the goods or services to satisfy an objective, and it exists before the transaction occurs. Price is different. While value is often expressed in monetary form, it is not directly related to price. The value of eggs to you is to be found in the willingness to feed chickens. Your friend's value will result in a price.

Value exists as a yes/no decision. That decision can be stated as "Do you value what you will receive as greater than what you are giving up" What you give up has to be less valuable to you than what you receive. For you the thing you give up is time and care for the chickens. What he gives up is money. If you perceive the time you give up will be more valuable if used in obtaining money, you have the choice of giving up that time for money, and then using the money. In each case the value I use is a comparison between two options. Value is a choice between two possibilities.

When I buy a house there is another consideration to value. The question involves a perception of possibility. If the price needed to acquire the house is greater that the assets I have available to give up, I consider the choice already made for me. When this occurs I withdraw from the market. I may need a home, but the perceived reality is that I cannot acquire one. This consideration brings out the requirement for a threshold of resources to give up for needs. This idea of the threshold is important because it separates the ability to act from the recognition of hopelessness. The threshold is the point at which a person believes that he has enough resources to take some action.

Homeless people are often below the threshold. This may not be from lack of money. These people may have a small amount of money, but their resources do not include a means for an employer to contact them, or a place to freshen up so that they are presentable during an employment interview. Since these factors are often the first impressions that employers make, employment is not a reasonable possibility for the homeless. Without this threshold amount people cannot contribute to the economy.

It is in the best interest of the economy that I have a home and as a result the economy develops a method to overcome the idea that I cannot afford it. Mortgages are available to advance the value to allow the purchase. That mortgage is not a gift. I have to determine that I will be able to repay the value advanced. At no time will an economy intentionally allow anyone in it to spend more than he has or can get. This rule, that if your outgo exceeds your income, your upkeep will be your downfall, is an inflexible and controlling rule of economics

Some Economies That Worked

When economies are viewed as organisms rather than a discipline, some interesting results develop. For example, an economy may be found to exist without any money involved.

The book ROOTS describes the Mende economy of West Africa. In that economy each person has his role to play at a different age. The role of the preteens is to care for the goats, the teens, the cattle. After the young men are trained, they are expected to learn the area, then take on other roles until by their old age they have the role of village elder. All the economic needs of the Mende are met by this assignment arrangement.

In central Zaire, now the Congo, the tribes have no local word in their language for house or food. The food they needed was growing outside and was always available without storage, and the shelters they needed could be thrown together quickly from materials located in the forest nearby. In such an economy the economic needs for food and shelter cannot exist. Other economic needs, such as social interaction take precedence, and verbal skills and dancing become the principle needs.

When monetary economics impinge on such economies, the effects are devastating. Money supplied by oil sales in West Africa cannot be applied to nonexistence food and shelter needs and instead are used to enhance status. Because money is so easily available to more than one individual, status becomes an illusion, and the country descends to war.

In the Mende economy the threshold is provided by acceptance of the individual as a part of the economy with a specific role to play. Because everyone has such a role, all the essential needs of the individual are provided by the community. Since those needs include almost all the needs the individual has, extra resources are not required, and individual effort beyond what the community needs are not required.

An Example

Economic structures arise fortuitously, but are stable and continuous so long as resources exceed expenditures as a whole within the total structure. An example of how this can occur is the hypothesis of rise and fall of the Viking empire.

We need to set the stage first. Earlier we quoted from two sections of the History of Rome by Moses Hadas. The first showed that farmers were unable to farm because they owed so much money to Romans. The second showed that the people were no longer claiming to be Romans. St Remigius was a bishop of Rheims during this period, and realized two things. The debts needed to be cleared and an effective government needed to be established. The second he accomplished by accepting the Franks as the rulers in what was then Gaul, choosing them over the Visigoths, Lombards and Vandals, who failed to believe in the essence of the church's teachings.

The first he accomplished by promoting a variant interpretation of the Bible. By saying that interest (usury) was a sin, he gave people a reason to refuse to pay their debts to the Romans. This solved the immediate problem but destroyed the ability of the people to invest there money in improvement to their condition. Without interest, loans were not forthcoming and business died. The middle ages in Europe floundered in this inhospitable business climate.

People still amassed money as they went about their business, but without a means to invest for a purpose, they looked for a way to use it. The church taught that you should "lay up for yourselves treasures in heaven." The church itself was as near heaven as a man could be then so wealth was placed in the church. Churches were meant to be approached, so they were placed close to where people could reach them.

Perhaps a fisherman from Norway was blown to England by a storm. While the storm abated he sought shelter in the only place he could find, the church. Everyone else was home in bed, and there were many beautiful things lying around, so when he left he took a few of them. Arriving at home he described the finds and showed what he had taken. Since the pickings were so easy, other fishermen made the trip soon after. Soon, a trip to loot the churches was a lark. The early descriptions of the actions of the Vikings show that if anyone stopped them in one place, they didn't fight, but went to another. There were plenty of churches available that didn't have any defenses.

At home, the fishermen found that they could trade these finds to people farther east. Another trade had developed in the other direction. Firs from Russian forests made good warm clothing, and Byzantine traders had established connections with Novgorod the Great. Where the two trades met, silver and gold from English churches could be traded for Indian spices (brought overland to Trebizond, or through Egypt), military armor, and other things needed by the fishermen. Soon fishing was a part-time trade and mining the churches came first. The armor and military tactics learned as the Vikings spent time in Constantinople made the Vikings more able to force their will on the people who were providing their wealth. Eventually they could not be stopped.

The Viking empire extended from Western Europe through Visby, Novgorod and Kiev to Constantinople. Different parts of this empire included mercenaries in the Byzantine army, fir trappers in Russia, traders in Visby, and sailors in Norway. A castle built on the Kattigat charged tolls on passing ships, in the same manner as Troy at the entrance to the Bosporus. This enterprise indicated a very cohesive economic structure that was able to last until the Mongols destroyed Kiev.

Cut off from their markets in the East, and out of loot to trade in the West, These Vikings raided England to obtain land to farm. Not having to have a very strict government, since everyone benefited from supporting the other participants in this economic structure, they were not used to governing. After they had obtained all the land they needed for themselves, they allowed Alfred the Great to extend his government over them, and became the "Danelaw" of history.

That they did not expect to be bothered by the government is illustrated by the efforts William the Conqueror needed to use to subdue them in the "Harrying of the North" soon after the Conquest.

Dying Economies

In 1972 Colin Turnbull published a book called THE MOUNTAIN PEOPLE about a tribe in Africa (the Ik) that had survived on hunting. The Turkana and Dodo tribes that lived in the same area were flourishing, but the Ik had be deprived of their hunting lands by establishment of Kidepo National Park. Their territory, in Kenya, had extended into Uganda and Sudan previously, but police in those countries had forbidden them entry to that part of former territory. These restrictions on their use of the land deprived them of their former economic base and that book is a description of the relationships they had developed to overcome the deficiencies.

The principle hypothesis of the book was that cooperation between individuals within the tribe ceased to exist and individual selfish interests were the only interests left. Mothers abandoned their children whenever the children became a burden. The only way children were born was by rape, and theft was both expected and proper. Individuals separated themselves from each other and only cooperated if they were able to gain something from the activity.

Whenever hope for a better situation becomes impossible for individuals, the economic structure of which they are a part becomes superfluous. An example of this can be seen in Palestine today. Palestinian youths find it easier to commit suicide, taking others with them, than to continue to exist where there is no work, no chance for advancement, and no future.

This attitude is expressed in religious terms, but religion is a smoke screen for hopelessness. People do not like to face the fact that their efforts are deemed to be worthless and rationalize events and situations in acceptable forms. Just as frequently, the ideas that get public attention obscure the real economic basis of activities. One clear example of this is the American Civil War. The generally accepted purpose of that war is that it was a war to end slavery. By analyzing the results and the activities of the people, this idea becomes unacceptable. Slavery only changed form as a result of that war. It did not end until activities by the Blacks, including Thurgood Marshall, Martin Luther King and such clear examples as Rosa Parks caused the accepted reality to change.

The activities of those who fought the war indicate an entirely different purpose. Immediately after Fort Sumter, Ohio raised nine regiments, and two more regiments came from what was later West Virginia. These regiments acted decisively to protect the rail connections on the Baltimore and Ohio Railway through Grafton, in what was later West Virginia. The first land battle of the civil war was a decisive move to protect that railroad. It was fought at Phillipi, West Virginia. Throughout the war, the people of the Midwest were clearly motivated to protect their economic structure.

This structure required access to markets through states that had access to the ocean. For the people of Ohio and west this access was principally through the port of New Orleans. While the war in Virginia was principally a scholarly exercise in army maneuvering, the war west of the Appalachians was fought without reprieve or rest.

Soldiers spent months on the levees opposite Vicksburg, rather than go into winter camp. The motivation for such dedication could only be that something important was at stake. That importance was expressed by Lincoln himself, when he stated that whether slavery continued or not was secondary to maintenance of the Union. Once the Union was secured, and emotions died down, the Negroes were re-enslaved under Jim Crow Laws, and this was not contested by individuals in the North.

Only when the Blacks chose to make their case, beginning with the school desegregation case, and made themselves heard was slavery finally addressed. Recent litigation, calling for reparations, make the efforts of these pioneers of fairness seem to be a matter of far less valued than they really were. The changing of attitudes is not done by war.

The process of integrating differing cultures seems to take about three hundred years. The integrating of the Anglo-Saxons and Normans after the conquest also took about this amount of time.

Typically the integration of peoples tends to gravitate toward the culture that survives best in the environment in which it exists. Economic structures, then, seem to be controlled by the environment. But environments often allow the survival of different economies. In Alma Ata, a town in Central Asia, exiles with Germanic background continue to maintain clean neat houses, while local people who live next door have adapted to the sparse surroundings by allowing what other would call slovenly conditions to be their way of life.

In the Southern United States, two different attitudes toward life exist. Porgy's song, "I've Got Plenty of Nothing," in "Porgy and Bess" is not imagination. Many people whose background is African find that this is the proper attitude to take toward life because in the environment in African a person can only exist if you do not invite rats and rot by storing food. So long as the lakes yield fish for supper, and food can be obtained easily, this way of life is possible. People with Nordic thrift can also exist, and if there is plenty both ways of life are acceptable.

The problem comes when the environment changes. As food becomes more difficult to obtain, either by increased population or destruction of local food sources, the apparent advantage of one way of life over another becomes a real advantage. In the Southern United States in the past, Blacks could live fairly comfortably by fishing for their dinner, and living a relaxed life. Whites felt threatened by the ability of the Blacks to exist without the formal work ethic. They insisted that their children work and the example of a culture that seemed to be successful without that ethic made it necessary to defend their ideals.

Blacks who moved to the North gradually understood the advantage that the work ethic gave to those who accepted it. In the North, the accumulation of resources for the winter is not only advantageous, but essential, and education to allow a child to learn to fit into such a culture was clearly needed.

In the South, the two cultures coexisted, each deriding the other for their silly values. However, as the South became more industrialized, leaders of the Black community came to the realization that something had to be done as the resources that Blacks counted on slowly became less and less available to them. Over time, the two cultures will choose what is best of their separate cultures, and a new culture will develop that is appropriate to the region.

The Elements of Demand

Demand is a matrix, or combination of a number of concepts. These include the type of objective involved, priorities, economic structure and ability to warehouse. These concepts are limited by the resources available. (The lack of available resources is another definition of scarcity). By type of objective we refer to the nature of the objective and the ways in which it be accommodated. By priority we refer to the relative importance assigned to the objective by the economic structure of the entity. By warehousing ability we refer to the space available and amenable to keep quantities on hand. By the word "resource" we refer to the difference between what the structure has and can get, and what is used prior to the consideration of the current demand item. Availability refers to the knowledge that the structure has of the usefulness of objects available to it to accomplish the objective as well as the likelihood of obtaining those objects.

An item can be used to accomplish various objectives. Automobiles transport. They also show status, and allow people to play. Even in the act of transporting they can be used to transport materials, or used to transport people. It is not surprising that automobiles and trucks come in various sizes, shapes and abilities. Each type is suited to a specific objective. Even within the specific type of car the objectives of the buyers differ. Advertising to obtain demand for automobiles usually does not even relate to the car itself, but emphasizes sex, status, or the ability of the car to help in play or work.

Real estate sales agents are taught not to emphasize the house itself, but what the client can do with the house. One agent's instructions were to "sell the dream." Practical efforts by salesmen are usually not directed at the thing that is up for sale, but at the use that the buyer has for the item. Demand starts with an objective.

The fact that one buyer may have an objective that requires a business car, and another has the need for a personal car produces a demand for two cars. The fact that the same type of car can accomplish both purposes does not reduce the demand for the two cars. As more objectives of different people accumulate, a demand curve develops. This demand curve consists of many separate demands. These demands in turn have many different characteristics. If a man bought a car to enable him to transact business, he would be willing to pay whatever was necessary. Another man might want the car for status. Anything that was said against that car might remove his demand. Cadillacs, mass produced and sold at less cost, would be less attractive than they are today.

Even in purchasing food, people have differing objectives. Asparagus and green beans are both vegetables, but if the meal is an attempt to impress a client, asparagus is the choice, because it is more expensive, and therefore more impressive. If the purpose of the buyer is to save money, so that it can be used for other purposes, green beans are to be preferred. There is a clear example of two different structures in the difference between grocery shoppers who use coupons and those who don't. The time needed to sort, preserve, and use coupons requires a major part of a shopper's time resources. This occupies the time of people who value their free time as less valuable than other occupations.

Objectives do not need to be significant to qualify as objectives for the purpose of determining demand. Play and sex, for instance, are important objectives that have their own characteristics. A sports car, bought because it is likely to attract members of the opposite sex, is bought for that purpose, not for transportation. The importance of recognizing that the objective of the buyer is the most vital part of demand causes successful salesmen to concentrate on what will create a transaction, rather than on emphasizing what he has to sell.

The Role of Priorities

First priority objectives will be the ones fulfilled. As each acquisition of a first priority is mastered, another advances to that position. Within a rational economic structure these priorities advance in an orderly fashion, and continue until all perceived resources are assigned to needs. The demand for an item will depend upon the priority given to it in its priority system. As resources increase, more objectives can be met, but if resources are seen to be limited, objectives that are included in a person's plans will be dropped.

Usually food has the first priority spot when resources become available. The elimination of other priorities when food prices increase causes a collapse of demand for products whose position in the priority system comes close to the point where resources become exhausted. This interaction between high priority and low priority causes problems whenever basic demand consumes a greater proportion of the resources of an economic structure. Marge Blackwell, whom we met in an earlier chapter, was such an economic unit and had just such difficulties when grocery prices rose beyond what she could pay.

The Economic Structure

A book published some time ago described the "Nine nations of North America." This book showed that the culture of different parts of the country was similar within each of nine areas in the continent. Common ideals, interests, relationships, and organization existed within each of the areas. Such areas qualify as economic structures. Similar interests create similar objectives and so create similar ways of dealing with the economic facts of life. Each of these areas also has sub economies that differ from each other, but fit within the overall economy.

Ability to Warehouse

This attribute of demand is often overlooked. In South America, Aspirin is sold in two tablet sizes. In the United States the quantity is usually at least one hundred tablets. The difference is the ability of the buyer to have control over the quantity involved. Storage in South American and African homes is usually less, both because there is too much access to vermin and because structures do not allow items to remain stable in excessive heat. In these conditions, the consumer prefers to have only what is needed on hand.

Resources can be the physical items needed to accomplish an objective, or the ability to exchange for or acquire the items necessary. Whether the resources are available or scarce will determine whether an objective will be pursued or abandoned.

These attributes are a fluid mix. Certain foods may be available but considered by the entity as "not to be used." An example would be catfish, which are great eating in some people's mind, and dirty in others. Cultural differences will make different people have different ideas as to whether any item is a resource or not. People who traveling will rent a bed for the night rather than buy one because of the lack of any ability to store the bed.

This fluidity of demand arises from the understanding that every factor mentioned above affects the requirement for any specific item. Knowledge and time as well can change the requirements. Because demand is the result of so many factors, it is not predictable. Only by using and understanding the law of large numbers can we create and believe in a stable situation overall.

Sub-economies

> Little fleas have lesser fleas upon their backs to bite'um.
> And lesser fleas still lesser fleas, and so ad infinitum.

When we look at organisms, such as the body, we find that the overall organism is made up of lesser organisms. Lungs and hearts differ remarkably from each other and eyes and ears differ still more. Each of these parts has its distinct role and organization. Lungs do not pump. Hearts do not have openings to the outside air, and neither reacts to outside stimuli as do the eyes and ears. Economies have similar differences. There are differences in locations, differences in purposes, differences in available resources, differences in philosophical concepts and many other differences that set each part of an economy apart from all the others.

A hitchhiker stood at the top of a hill in a gap between Lenoir and Morganton, North Carolina. A driver had given him a ride to that point from Lenoir just as the companies in Lenoir had changed shifts. For five hours he stood and waited for a ride. Every car that approached from Lenoir turned off before it reached him, and the same thing happened to cars coming from Morganton. Not one car drove across the divide. Every driver was part of the economy of the city where he worked. The regional economy of Lenoir did not interact with the regional economy of Morganton.

Regional economics is a fact of life in this world and provides for some interesting situations. Textile firms moved to the South from New England in the first part of the twentieth century. The low wages of the Southerners was matched by the low cost of living in the South. New Englanders did not spend the profits they obtained in the South. There the additional money would compete for the same goods and services, and would have increased the price level. This would in turn have increased cost. This would have justified a need for increased wages and that would have destroyed the profit they had developed. The profits were spent in New England. Even though the price level in New England was higher, the additional profits developed by the difference in wages had more value in New England than in the South. Additionally the increased availability of funding increased the economy of the North

Regions develop their own levels of resources and needs. At one time the average wage in San Francisco was $9,600 per annum. At the same time, the average wage in North Carolina was $3,500. The items needed for living in each area cost the same as a proportion of the average wage, even though the actual price was difference – diapers in San Francisco, $10.00 for a certain quantity, in North Carolina $3.50. Because of the differing revenues and expenses, and the same income tax rates in both, the proportion of the revenue left after taxes was smaller in California with a higher income, than in North Carolina with about one third as much income. The North Carolinian was more wealthy at one third the income because the proportions left a greater percentage available to spend. This discrepancy was seldom noted, because people were part of the economy of their region and had little knowledge of other regional economies.

Regions in India are far wealthier than in more developed countries. For example, the people of India have more money available to attend movies than almost any other country. With a wage level sometimes stated in the $100 to $200 per year range, they spend more on movies than any other country. Not only is the cost of living in monetary terms less, but the requirements for living are much more favorable. Heating costs are needed only for cooking, travel is by animals owned, (and fed from farm production) and needed food is grown on the farm where the people live. If the person has a greater percentage of his income free of demands, he is wealthier. Charles Dickens, and later W.C. Fields, stated that twenty pounds (dollars) in and nineteen out was wealth – Twenty pounds in and twenty-one out was poverty. This redefinition of wealth has immense impact upon the nature of economics.

The impact also looks at class differences. In Northern New Mexico there are three economies coexisting in the same region which have complete and separate structures. The Anglos, Castilianos, and Pueblos do not interact as one economy, but as three. Castilianos are descendents of the original Spanish invaders. The Anglos are English who came with the annexation of New Mexico into the United States and the Pueblos were there before the Spanish. The urbanization effect of the minimum wage has eliminated industrialization of the area, since it is over fifty miles from any urban center and freight charges must be paid to send the product to market. The Forest Service is the biggest consistent employer and is required by law to pay wages comparable to local industry, and wages above the minimum wage. The local wage level in 1963 was well below the minimum wage, so the Forest Personnel Office used the comparable wage for Santa Fe (which was nearest large town) as their basis for local Wage Board rates. This created a rate that was far higher for Forest Service employees than the wages paid by local individuals.

Jacobo Torres was the purchasing agent for the forest. His high wage in the Forest Service made him a major factor in the Castiliano economy. He received his wages in the Anglo economy, and spent them in the Castiliano economy. With wages as low as fifty cents per hour, the purchases Jake made were a far lower percentage of his overall revenues, than the equivalent purchases in the Anglo economy, and far greater than other Castilianos were able to pay. This tends to indicate that major opportunities for wealth are activities which cross the boundaries of sub economies.

This difference between sub economies is reflected in the shopping habits of people with differing income levels. High revenue individuals are expected to shop in high priced stores. They tend to buy Cadillacs or other luxury cars. The fact that many millionaires shop at Walmart seems to fly in the face of common sense, yet it makes sense that they have become millionaires by shopping in a different sub economy.

It is interesting to note that a McDonald's sandwich sold in America for one dollar is sold in England for one pound. The price would appear to be proportional to the difference in the value of the two currencies, but each country has a proportional equivalency, rather than an arbitrage equivalency.

By trading between sub economies, businesses derive a profit for a while. Eventually, without structural problems they end up being equal.

Local Control

Subeconomics are defined and separate from each other. One of the most serious difficulties that can occur in an economy is when the location of the control of a subeconomy is separate from the location of the subeconomy. Ireland suffered for many years from absentee ownership of the land. People who lived in London and had no contact with the Irish countryside had the authority to determine what was done in the Irish villages. Such authority, no matter how intelligent, must be based on conditions of which the authority is ignorant.

In Russia during the Soviet period, any farmer who needed to obtain fertilizer in order to plant a crop had to request it through the channels, many of which led all the way to Moscow. If the request were approved, the fertilizer might be received some time later and the crop would be beyond the need for that fertilizer. A major reason for the collapse of the Soviet system was the inability of their subeconomies to manage their affairs locally based on current conditions at the site. There is no assurance that enough information can be received in a distant site to make rational decisions

In Switzerland, there are gardens where the lowest rows in the garden could be planted before similar rows just a little higher. The local climate is that specific in certain cases. In such cases the idea that that someone not at the site could determine what was right for that location becomes difficult to believe

During Jimmie Carter's term as president, his knowledge about conditions in Georgia was complete, but his knowledge about conditions in California was not. Water projects which are life and death to many Californians were denied because conditions in Georgia did not require such projects. Similar attempts to use his beliefs about conditions in Georgia when dealing with areas where such conditions did not apply were a major reason for considering his presidency a failure. Economic conditions deteriorated because of such failure to allow individuals in the area involved to make the decisions that were needed to support them.

The population of Brazil is concentrated in Sao Paulo and Rio de Janerio states. Less than four percent of the population lives in the Amazon Basin. As a result the people of the large states have the power to determine government policy in the Amazon. Most of these people, having never seen the Amazon, picture it as a lush fertile area. The reality of the situation is that that lushness is based on the continuation of the vegetation that is there. The city dweller is told that they can grow grass where trees grow now, and works to obtain land in order to get out of the barrio, or to expand his farms. When he removes the trees, however, the constant rains wash all the nutrients out of the soil and the colonist is left with a barren subsoil that will produce nothing. Having committed all his resources to moving to the location, the settler is adamant that he can make the process work, so he moves to a new location. Between timbering for the wood (which is done to satisfy absentee landlord) and this process, the nature of the Amazon is in the process of complete change. Ignorant authority creates many unacceptable conditions.

When the Dred Scott decision was pronounced by the Supreme Court of Judge Taney, it seemed to only imply that ownership of slaves could not be changed simply by moving into a free state. But the people of the Free states inferred, correctly, that, under this precedent, a planter could move to their state, build a plantation and use slaves to compete with the farmers of that state, so long as all the slaves that were brought into the state had been slaves in the state from which they had come. Such a precedent meant that the Free State laws against slavery were null and void.

It would have been possible for Mr. Taney to have used the logic that is current today. That logic would have set a precedent that Military individuals, serving in Union Service were under the residency laws of the state that they held residence, rather than under the residency laws of the state in which he served. Had Mr. Taney chosen this alternative, the Free States would not have fought so hard to overturn the status Quo. But the logic used stuck at the very heart of the authority of the state, and the Free states could not allow the decision to be effective if they expected to have local control of their affairs.

That the importance of the Union to the North was paramount to the survival of the landbound states of the Midwest is shown by Lincoln's reference to saving the Union regardless of whether the result was slave or free, and by the different commitment of the people of those states to the continuance of the War. The Seaboard Northern States, however, would not have allowed the Union to stand if they were required to accept slavery as applying nationwide. This difference is shown by the attitude of the seaboard Northern States to "Let our erring brothers depart in peace," and the determination of the Western soldiers to destroy the South by any means available. It was Western armies that ravaged Georgia, and South Carolina. Eastern soldiers admired and feared Robert E Lee, placing a premium on correctness that did not apply in the West.

The Effects of Structural Interdependency

The health of a subeconomy affects the health of the overall economy, and the structure of the overall economy affects the health of the subeconomy.

The City of Canton, Ohio has been active in the steel industry for most of its history. As the price of steel has been affected by restrictions on domestic production and costs that do not apply to foreign manufacturing, the health of the steel industry has been deteriorating. Steel makers that formerly had price levels that justified the costs inherent in the methods used in Canton now command prices that do not cover the costs.

As a result, manufacturers that formerly were able to include local taxes as part of the costs of doing business are unable to acquire sufficient funds to provide income to the city, and the city must restrict the use of the remaining funds that they can receive to the services they are able to provide. The health of the subeconomy has affected the larger economy.

The opposite is also true. The structure of the overall economy affects the health of the subeconomy.

An illustration in another part of this book describes a doctor, from Alaska who purchased a home in North Carolina. He insisted that the price had to be more than the $125,000 that he had received from the sale of his Alaska home. This price was dictated by the income tax provision that exempted tax on the sale of a residence if another was bought for the same or a higher amount within a certain period. As a result, the realtor obtained a listing of an $80,000 home for $125,000, and the doctor paid $40,000 for the privilege of not paying $15,000 in taxes. This structural abnormality has resulted in far more serious economic health problems for the subeconomies involved.

Panaceas have side effects. Now that drug companies can advertise their drugs, the ads that appear are required to list these side effects, and a major part of each ad is dedicated to them. The ads almost seem to be addressed to why a person should not take the drug being advertised. So it is with an economic panacea, but there is no law that requires such a disclosure. The side effects occur, but sometimes are not even observed. As with medicine, too, the result is often to take another drug to offset the effects of the first. Now, under new tax laws, the major investment of most people has been removed from all tax and the government must overtax other areas of the economic structure to make up for that loss.

In the Conclusions chapter of this book we will discuss two possible replacements for this rule. As capital investments, housing costs could be deducted as they are made. As inventory, tax could be deferred. The solution to the problem is to solve the problem, rather than add another tax law.

There is a second, more serious side effect to the housing difficulty. Housing materials are things and respond to the economic aspects of things. Tax free investments are preferred to ones that require tax. As a result housing activity has increased. That increase, however, has been more in upgrades for people who already have a house, rather than in overall housing. A house that has only a thousand square feet of living space costs a certain amount. A house that has seven thousand square feet, often to house only a couple, or stand idle to await a buyer, requires seven times as much material. Supplies of things will increase as there is a greater demand for them, but there are realistic limits to their availability. Only so many men are willing to work in the lumber industry, only so many trees can be grown. These realistic limits, the law of supply and demand, mean that the cost of a house has increased. That result is not because more people are being housed, but because more material is used in the houses that are built, frequently only for those who already have a house. As our population has increased, and our housing efforts have been directed to those who already have a house, the result has been a real increase in homeless people, and people who live in substandard housing.

Houses deteriorate. Often these houses are homes to people who have lived in them for many years. As the deterioration reaches a point, repairs are needed. The homeowner who has found that he needs a new roof must compete for the services of a roofer who can be paid for either his house or a new house that is a much bigger and more profitable job than his. To obtain his services, the homeowner must pay his price. Often his resources are insufficient, and the repair is not made.

A city code required that houses be presentable. A man had a house that needed painting or siding. He chose to do the siding and bought the materials. The city required that only qualified workers do siding. The man soon found that his resources would cover either the siding or his food, and he walked away from the house. Our constitution requires that just compensation be made for condemnations, but the city blamed the homeowner for not taking care of his house.

Under the current attitude that anything less than perfection must be changed, we will continue to force our people into the streets.

Economies of Scale

The concept of economy of scale has a real effect in economic activity. Essentially it involves the understanding that there are three separate parts in any activity, preparation, execution and clean-up. No matter what job you intend to do, there are steps that must be taken before the task can proceed. A speaker must decide what he wants to say. A seamstress must set up the sewing machine. A pianist must open the piano and adjust his seat. A lawyer must attend law school and pass the exams. Each of these actions must occur before the individual gets down to work.

Once these preparatory tasks are accomplished, the activity can proceed, but there is no need to repeat the preparatory tasks every time we repeat the task. So it is that an assembly line can be set up to make cars, and a million cars can be made before another change in the assembly line is needed.

When the last car to be built on an assembly line is made, the assembly line must be disassembled before it can be used again for another model. These three steps, set-up, execution, and clean-up must occur in any economic activity.

If two assembly lines were set up for the same model, each would require the same preparation and disposal expense as if only one was built. The costs of the first and third of these steps would now be doubled, even though there is no need for more than the original million. Per car these expenses would be doubled, without any increase in profitability.

People look for economies of scale in every endeavor. The efficiency of multiple production is so obvious that individuals try to use it even where it is inappropriate. Education curriculums attempt to work with children by using a common set of studies as if each child learned at the same rate. With thirty children in most classes, and some teachers having as many as six classes per day, the temptation to use economies of scale in education creates a situation where unprepared students are frustrated by inability to learn, and well prepared students are frustrated by needing to proceed at the pace of slower pupils.

People attempt to use economies of scale in other ways as well. Pro-life individuals try to eliminate abortion by passing a law. Reasons for abortion range from allergic reaction to pregnancy, often after the first child is older, to the belief that parents will be abusive and unwilling to love the girl if she is pregnant. Each situation demands that separate preparation and closure activities are needed to counteract the idea of abortion. Each situation must have a response based upon the circumstances that exist at the time when action is needed.

American history is replete with examples of attempts to solve multiple problems with single solutions. Sometimes the efforts have been partially successful. Abolitionists created a climate before the Civil War that made a step forward in the treatment of slaves. Unfortunately that step was not permanent, and it took another hundred years before integration and respect for Blacks began to be the norm. This did not occur until the Supreme Court ruled in the case of Brown vs. Board of Education.

At other times the effort to apply a single solution to multiple problems has been a distinct disaster. Prohibition was an attempt to do away with the evils of alcoholic excess. The result was a criminal development and the establishment of bootlegger mentality.

The obvious benefits of economies of scale are a major consideration of the American dream, but the idea of economy of scale has its drawbacks. The first of these deals with the number of goods and services that can be used to accomplish objectives. When these goods and services are monopolized by the established economies of scale, (see the next chapter) there are no objectives available for the structures that would be able to compete with those establishments. Economies of scale tend to eliminate economic structures where objectives are limited. Despite the drawbacks, the values of economies of scale cannot be denied

Without these reductions in cost many products could not exist. The man-hours needed to make a car would be beyond the resources of any individual. Just the time required to assemble an auto has been placed at over 2,000 hours, and the manufacture of many of the parts is, individually, as complicated as the overall assembly. By mechanization and using mass production techniques, many cars can be available for sale within weeks of the order for them.

Mechanization has made the cost of candles at retail as low as $1.50 for certain types of candles. Craftsmen may have to pay that much for the paraffin to make such a candle. By emphasizing the differences between the craftsman's product and the store's product many craftsmen can still make and sell specialty candles, but generic candles would cost more for a craftsman to make than the price that he would have to pay to purchase them in a retail store. Since the price is set by the lowest alternative price, the outgo to make such candles would be greater than the revenue that the maker would receive. This means that effectively the non-mechanized manufacturer will not be able to continue production.

The puritan work ethic assumes that there will be work available for all people. It looks down on those who do not work, and assumes that failure to work is a fault of the individual. Unfortunately there are many times when there are no objectives that need to be met by those who have resources that can be used. Even more frequently the resources needed to accomplish a job are both beyond the resources of the individual, and redundant to less expensive means of fulfillment (as with candles.)

As means of production become more concentrated by the inevitability of monopoly, more and more people become unable to obtain the resources that are needed to contribute to the economy of which they are a part. When the situation becomes too extreme, the people who are pushed out of the economy find that morality becomes too expensive for them. These people, like Pedro Cabral in Mexico City, find other means to survive. Such thieves and pickpockets are the result of the discovery by these people that such work is far more rewarding than legitimate endeavor.

The United States has been able to overcome this propensity to move to more lucrative but immoral means of obtaining resources by its development of social security and other welfare programs that enable individuals who have no resources to remain in the economy. The vast profitability of the drug trade, however, has lured many individuals to invest in and profit by the high returns on their money that increase their resources. As long as the efforts of the people in charge are directed to moral arguments rather than toward the profitability of the trade, the attempts to end the trade are doomed to failure. As long as the price of the drugs is astronomical, the pushers will continue to entice individuals to try the drugs. Once onto drugs the pusher is guaranteed that the user will not turn them in, since, then, his source of supply will be cut off, and he will have to suffer withdrawal.

The efforts of China to stop the drug trade during the opium wars show that enforcement of drug laws will never be the answer. The limitations on the supply of drugs actually proved to be counter-productive, since they increased the price and assured the pushers of a higher profit. Given that morality is irrelevant in this situation, it becomes necessary to assure the user that he will not be harmed by drug laws. When he becomes able to believe this, he will be in a position to cooperate with those laws.

If there is ever a serious effort to eliminate drugs it will include providing drugs at a reason able price to those who are unable to withdraw, incentives to users and others to inform authorities of actual situations, and a destruction of the profitability of the drug trade. A possible solution would be to provide drugs at a reasonable price, such as twenty-five cents per dose, and an assumption that any sale above fifty cents is an illegal act, for which confiscation of all assets of the seller is a penalty. These assets would be placed in the hands of an executor, who, for a reasonable fee, would maintain the assets until the determination of whether they would be permanently confiscated. Any funds that the perpetrator required would be determined by the trustee. Upon verification that the confiscation should be permanent, any informant would be given a reasonable portion of the estate for his assistance. With a program that deals with the problem realistically, the drug trade may be stopped.

The use of prison space and time is counterproductive in this case. Limiting the location of the prisoner while providing him with the resources he needs to survive causes no problems so long as he has the ability to communicate with those who will benefit by helping him. The restrictions on his movements are not a great problem for him. By coordinating the efforts of others or funding the investment needed to push drugs, his economic structure is strengthened rather than punished.

In this instance, the economy of scale of an industry is a major cause of its success. Routes to import drugs into the United States require a great deal of setup costs. Protection of couriers requires preparation. The expense of this setup can only be supported by highly profitable enterprise. Luckily for the pushers, the product is homogenous, easily transported, and vital to the physical well being of the user. Just as tobacco provided a secure, safe and constant value to the colony of Virginia, drugs provide a constant value to the drug pusher that can be secured by appropriate payoffs, made safe from competition by drug laws, and safe from treachery by the inability of the user to find alternative sources at reasonable prices.

Trash

When car makers change models, they retool the assembly line. This involves setting up the assembly line for the new model. Before that can be done the old line must be removed. This cost is not attributed to tearing down the old line, but to the setting up of the new line. Setup and production costs of any product require that the costs be paid before resources become available from an endeavor. Tear down costs do not have this requirement. Archeologists do not delve in the profitable workings of ancient civilizations. They study the middens, or trash piles of those civilizations. Profitable activities use up the things that are useful. What is left is the trash. No one has time or interest in reworking what now has no further economic value.

This part of the economy of scale concept creates a real problem for an economy. Since there is no economic incentive to reclaim or eliminate trash under the economy of scale concept, people have engineered packaging that will preserve the product, and failed to provide for the elimination of the packaging once it is no longer needed. Styrofoam that will last for many years, tires that cannot be easily burned or stored, tin cans that will not crush, poisons that will leach into fresh drinking water and plastic containers that will not disintegrate have made a significant portion of our world unusable.

The resources that support the first two stages of an economy of scale situation are not available for the third. These resources will have been used up before the third stage, tear down, has arisen. Any such resources will need to come from a common determination to address the problem, which means taxes, and a willingness to use techniques that are currently unacceptable, such as fire, that will require regulation.

The Inevitable Monopoly

Every economic activity, unregulated, becomes a monopoly.

That activity may become a monopoly by income, efficiency, subsidy, power, legality, positioning, deep pockets or information, but it will become a monopoly.

Whether the economic activity calls itself competition or monopoly, the reality of any unregulated economic activity will be a monopoly.

Whenever people are willing and eager to pay less than the full economic costs of any economic activity they are developing a monopoly.

Whenever people delude themselves that they are saving money by participating in a below cost sale, they are developing a monopoly

Whatever the people think they can do to avoid a monopoly, the nature of economics rules and overcomes their good intentions. Unless people choose to avoid monopoly, and act upon that choice, monopoly is inevitable.

Monopoly by Income

Any difference in income will tend toward monopoly. An example will show what this means. John has an income of twenty thousand dollars, while Bill has a salary of thirty thousand. John and Bill have the following expenses each month:

	John		Bill	
	Monthly	Annual	Monthly	Annual
Rent or house payment	325	3900	400	4800
Food	500	6000	600	7200
Automotive	450	5400	525	6300
Taxes	200	2400	300	3600
Other	200	2400	300	3600
Total		20,100		25,500

John with a salary of $20,000 has to pay out $20,100, while Bill with $30,000 has a $4,500 surplus

John has to borrow to cover the extra $100 while Bill has $4,500 that he can spend as he chooses, even though Bill has spent significantly more in every category.

One way, that John can cover the additional costs, is to borrow, and Bill has money to lend. Now John has the additional cost of interest to Bill and Bill has additional resources. This disparity is inevitable unless there is a willingness to avoid it.

This difference occurs, not because Bill is avaricious, but because percentage math and absolute math do not work in the same way. Absolute math has a tendency to increase without limit, or decrease the same way. On the other hand, both a top limit, 100%, and a bottom limit, zero, limit percentage math. Income is controlled by absolute mathematics, while outgo is controlled by percentage math. While your income can be increased or decreased without limit (bankruptcy occurs when it goes below zero), outgo is controlled by income. No one can spend what he doesn't have or can't get.

As Bill continues to have a surplus, and John continues to be forced to borrow from Bill, everything John has, eventually, becomes owned by Bill. Bill has a monopoly by virtue of his income.

Monopoly by Efficiency,

There are never two processes to create a product that have exactly the same costs. Differences in cost can develop in many ways. Differences in location, processes, materials, taxes, energy, abilities, knowledge, capital investments and even appearance can cause differences in the costs of any product.

If there are two locations, one near the market and one far from the market, the one far from the market must incur transportation costs to sell its product. The remote location has other difficulties. Fedex does not deliver by ten o'clock in the morning to Canjilon, New Mexico. The distance from either Santa Fe or Farmington requires too much drive time, and the volume of deliveries does not justify flying. This disability of the people in remote locations causes a situation where wages are so low that minimum wage laws are either ignored, or no economic activity occurs.

The increased costs of getting to market results in those businesses that are located in the market area have monopolies of equivalent products.

The process a business uses can never be exactly equal to any other process. Candles manufactured by a craftsman will always cost more than mass-produced candles. Even two craftsmen will have different ways to craft their candles and will have differing costs because of those differences.

Craftsmen do not develop monopolies however, because they are never able to produce enough candles to fill the need. Mass-production methods on the other hand, can. No matter what job I set out to do, there are three stages to it. (See the preceding chapter.) The first is preparing the scene, finding the tools and setting up the operation. The second is the job itself. The third is putting things away and cleaning up the site. If I make one thing, the setting up and tearing down costs are a certain amount. If I make two things while I'm at it, there is no additional cost of setting up or tearing down. If I make fifty, there are some additional costs, but not many. If there is an economy of scale in a process, that process will eventually overcome any similar process without it. Whenever a method of production becomes efficient enough to supply all the needs for their product, it will become a monopoly.

The availability of materials becomes a reason for differing costs and a monopoly by equal revenue with smaller costs. A business that has access to plastics that are equivalent to steel at a fraction of the costs will eventually have a business advantage that will result in a monopoly if the owner of the business chooses to do so. Phelps-Dodge was a company that mined copper. Copper wire was far easier for them to manufacture than a business that had to buy copper from them. Wire manufacturing by Phelps-Dodge brought the price of wire down to the point that others were forced out of business.

Monopoly by Subsidy

The airline industry once was regulated. No carrier could charge less than the full cost of the flight, according to legislation. They could compete on service, on options, on efficiency, even on ambience, but they were prohibited from charging less than the cost of flying the planes. That cost consisted of gas for the flight, payroll for the attendants, maintenance of the planes and several smaller items. Where airlines had a monopoly in an airport, there was no need to charge large sums for flights, and if the airline did, competition would be able to establish itself there.

Deregulation occurred. Airlines that had monopolies in specific airports increased their prices there and used the additional money available to them to subsidize flights in competitive markets. These flights did not return enough money to pay for the gas, payroll and maintenance of those flights, but other airlines had to meet the price they set. Such airlines as Eastern, all of whose routes were competitive, were forced to fly at prices that did not cover the cost of the flight.. Since they could not spend more than they had or could get, they found they could not continue to fly and went bankrupt. By subsidizing prices that undercut the competition, monopolists destroyed that competition.

Monopoly by Power,

We think of power as being the ability to force someone to do as we want him or her to do. In this way of thinking we can look to the situation in Ireland in the nineteenth century. There the power of English arms required the Irish to pay rent for the land they lived on. This type of power has been frequently used historically.

Monopoly by Legality

Patents are legal monopolies. Synthroid is a synthetic hormone used to replace the natural hormone provided by the thyroid. Recent attempts to reduce the costs of this drug have been aimed at the high profits available when the right to a patented commodity is essential to the health of the people. A class action has resulted in a judgement against the company.

Frequently in the past the legal authorities have given a legal monopoly for some commodity such as the mail. Only after the laws were changed did UPS, and Fedex become able to make deliveries of letters.

Monopoly by Positioning

AOL has a major position in the internet access business, despite the failures of their systems to allow for essential programs to co-exist with theirs. They were the first to issue ways for people to use their system, and by the time more efficient systems were in place customers had already committed to them. AOL's procedures are not as efficient as other internet providers, but their position in the market precludes competition.

Monopoly by Deep Pockets

The Dutch West Indies Company was formed after the Dutch East Indies Company had returned from Indonesia with products that yielded two hundred percent profit As a result the management felt they had to return equal results to compete with that company. The profits from New Amsterdam, Recife, the Dutch West Indies, Aruba, Bonaire, and Curacao did not justify the payments they made. As a result they had no money to use to defend these territories. All but the ABC Islands are now in other hands. The Dutch East Indies Company, with far greater profits, even with the higher dividends lasted until the Second World War.

In the airline industry, Delta, with its policy of avoiding debt has held its own even though the industry has completely different rules to live under. With the money available to remain in business, it has remained strong even as others failed.

Monopoly by Information

Jay Gould owned Western Union, the business that controlled the telegraph at a time when the telegraph was the only way to send information rapidly. He required his operators to inform him of messages that other companies sent that had information he needed. By using that information, he frequently gained control of the other companies.

Monopolies are inevitable in any stable economy. Mathematically they are the norm when any industry is able to supply the entire product that is needed. There are no natural checks on their progress, and frequently they are the most desirable result of economic activity.

Economics as an Organism

An organism is a unit that is stable, has activities, interacts with the environment around it, has organization, has parts that contribute to the whole, requires nutrition, and produces some effluent. An economic system fits all these requirements. The idea that economic systems have organic properties gives a different point of view to many aspects of economic thinking.

Monopoly is an ordinary part of any organism. A person has only one stomach, one brain, one heart, etcetera. When elements of the economic system are properly in check, monopolies are to be preferred to excessive competition. The problem arises when any one monopoly has such stability that it attracts most of the resources to that one monopoly. In one organism, the body, that result is called cancer, and will destroy the body.

An example of economic cancer is not so old. John D Rockefeller arranged for oil to be a monopoly. The reasoning behind his effort is not too hard to discover. A producer could take his product to market on Monday and receive a high price for it. That sale would be all the market could absorb that day and there was no demand for oil on Tuesday. Then the producer would take his oil to market and have to pay for the costs without any funds available, because he could not sell it.

By establishing a monopoly in oil, Rockefeller's organization assured the producer that when he brought his oil to the market he would receive $28 for each barrel he produced. With the assurance of a stable price, oil then could be produced by anyone.

It developed this way.

Before the civil war, Americans were dedicated to the land and their resources were directly related to the land. This enabled a certain equality to exist between the economic structures of the citizens. The cooperation and organization that the Civil War developed allowed a different arrangement of economic organisms. Merchandising and manufacturing such as the production of oil became far more secure means of acquiring resources than farming. Agriculture has always been an unstable source of resources, since the weather can change production drastically any year. The new methods were far more stable.

It didn't start out that way. The economies of the towns where the soldiers had lived before the war had adjusted to their absence. That adjustment had eliminated the roles that the soldiers would have normally played in the economic activities of their homes. This required them to look elsewhere for a means of acquiring resources.

One such way was to make use of things that were formerly considered of little value. In Titusville, Pennsylvania there was oil that was available, but which was not fully exploited. People began to take this oil to market. There was not a developed market, so chaos ensued. A barrel of oil might sell for $50.00 one day, but when the next barrel arrived in town, there might be no buyers. The seller then had to pay for the transportation, as well. Such a situation was not in anyone's best interest.

John D. Rockefeller, with others, worked to end this chaos, and eventually there was a set price for oil. This price was maintained for twenty years. With the set price, stability came to the industry. That stability attracted investment capital. Continuing capital investment in the oil industry and other stable industries eventually meant that sources of capital for other purposes could not be found. This continuing concentration of production in industries controlled by a few men caused a reaction against "trusts" that were considered to be robbing the poor and defenseless. Breaking up monopolies became the order of the day

This effort to break up monopolies was not carried as far as the rhetoric indicated. The catch word "monopoly" was used to build up support for the actions that were taken, but no one expected that the oil industry, for example, would be destroyed. The excesses that were serious problems were not the fact that the oil industry was more efficiently run as a monopoly, but that it absorbed too much of the available usable wealth. The percentage of wealth controlled by the monopolies was such that the remaining wealth was insufficient to fund the essential activities in other areas.

Every economic organism deals in percentages of its total resources. Since this holds true of each part of an economic organism, when economic organisms as a whole are reviewed, percentages are controlling there as well. If an individual must pay double the amount that he anticipates for food, unless his resources increase, he must reduce the amount he can pay for clothing or housing, or other expenses. When that reduction eliminates enough resources for the vender he also must eliminate expenses. At some point he must cease operating at all. When we discuss the depression, we will find that available funds in New York were less than the expense of the truckers who hauled food from Florida. When this happened, produce rotted in Florida, while people starved in New York.

Comparing the economy to the human body is an easy possibility. Every healthy organism provides all that is needed for each of its parts. In the body, the stomach and intestines provide nourishment. The blood vessels take the nourishment to each part of the body and return what is not needed for disposal. The eyes, nose, and other senses provide information to be used by the brain to coordinate the activities of the organism with the world outside. Each part has a role to play, and when the parts are working well the body is healthy.

How can the body become unhealthy? There are several ways, Nutrition may be absent, some part may fail, the brain may give faulty instructions, other control methods may fail, preference may be given to one part that aggressively acts independently, and other problems may arise.

An economy can starve. Between the First and Second World Wars, Germany was required to send a major part of its production to the allies in reparations. What was left was not enough for the people to share equitably. Bidding for the remaining food left many people out in the cold and inflation was such that a person could not buy what he needed to exist. Germany starved.

In a body some part may fail. Diabetes is the failure of the pancreas to produce insulin. That failure does not allow the cells to use what is available to them, Education may serve society in the same way. If an education system encourages individuals to place their individual interests before the interests of all, both the individual and the society fail. If a musician cannot learn to play there is no music. Other parts of society serve the same type purposes and can fail in the same way.

The brain may give faulty instructions. When governments idealize some concept that is not related to reality, the consequences can be destructive. The nineteenth amendment banned alcohol. The consequences that arose included destruction of many breweries, development of gangs, and a pervasive attitude that crime was something to be looked up to, almost fun.

Other control methods may fail. The body has hormonal controls that have nothing directly to do with the brain. In society, such groups as churches serve the same function. When the churches choose to isolate themselves from the needs of the people, they become irrelevant. Churches that serve only the needs of the wealthy, for instance, and eliminate those who have little, find themselves dying as the wealth of their parishioners moves away.

Preference may be given to one part that aggressively acts independently. This in the body is known as cancer. In society the same thing happens when individuals become so wealthy that they can ignore the interests of all others. Mr. Allen of the Microsoft Corporation bought an island that had been the campground of Boy Scouts, evicted them and built a house that is far more than he needed. He had the power and he felt the right to destroy the community for his own personal preferences. This is a real problem with monopolies.

The Good Things about Monopoly

It is understood that there are problems with monopolies and, if left alone, monopolies starve all the other parts of the economic body. This would indicate that monopolies should be avoided at all costs. The body, however, has only one heart, one set of eyes, and one of each type of organ that does not require cooperation of two, such as ears, eyes, and limbs. Intrinsically, economic activity tends toward monopoly. These facts tend toward the idea that there is something inherently beneficial about monopolies.

The benefit arises when economies of scale and specializations are considered. Every enterprise involves the costs of initiation, -- research, development, tooling, finding markets, training, etc. None of these costs by themselves benefits anyone. Venture capital required to cover these costs, which are frequently the basis for loss, and, unless there is some assurance that the venture will succeed, there is little value assigned to them.

The computer technical stocks recently had a great deal of value assigned to them. The internet provider named Yahoo had stock that advanced from $17.00 to over $180 dollars as it showed ways that internet selling and advertisement could return the investment. When it became obvious that the promise would not be fulfilled, technical stocks as a whole (The NASDAQ index) fell from over $5,000 to less than $2,000. Startup costs in any industry can only be recovered if there is enough perceived value among customers that they will give up enough value to replace them.

Every company has fixed costs that cannot be eliminated and continue whether goods and services are sold or not. Banks must have employees and record-keeping requirements whether there is any money lent or not. These costs are the same for each banking company. When banks expand services the same revenues must cover the new services as well. Competitors who do not have these additional services keep the bank from increasing its revenue. Frequently, banks merge to overcome this difficulty. Eventually these mergers become monopoly, but the services of the bank continue.

Monopoly is the efficient way to accomplish any objective. There will always be sufficient revenue to provide for all the costs, since there is only one place that the product can be obtained, and the cost must be paid. Research and development, and other costs that would not be possible if only the lowest cost were paid can be insured. In nature as in an economy monopoly is the best solution.

The Historical cycle

In almost every historical area, the cycle of chaos, stability, monopoly, and chaos can be found. America had its Shay's rebellion, constitution, monopoly under Biddle's bank, Chaos under Jacksonian Democracy, and intersectional rivalry, stability after the Civil War, Monopoly under the robber barons, anti trust actions which delayed the chaos of the depression, stability developed after World War II, and monopoly that has created such envy that terrorist actions are now attempting to create chaos. This is an inherent cycle is history.

Chinese history is the story of the chaos of warlords, the stability of a conqueror, the monopoly that developed, and the chaos of the next warlord period. Almost every other system has had the same cycle unless there have been so few resources that all are poor together.

How to Deal with Monopolies

There is no possible reason for people to pay excessive prices for monopolistic products, however. The monopoly is as stable as the government. We have a benchmark in the government. When governments borrow money, it must pay a certain interest rate. Monopolies have no reason to earn more than the government and should be limited to that yield on their sales. A monopoly then should be limited to earnings (including payments to officers who can decide what will be spent) of no more than the yield of government bonds, if the goods or services provided by the monopoly are essential to the health of the economy. If government bonds and monopolies have similar characteristics and risks, there is no reason that the investments in each should not be equivalent.

Such a rule, applied to essential goods and services (Diamonds, for instance, cannot be said to be essential.) with a definition of monopoly that makes sense, would hold the problem of overpayment for services in check. Such a definition could be that a monopoly exists when fifty percent of the production of a product is handled by one company, or seventy percent by two companies or ninety percent by three companies.

The significance of the inherent cycle of chaos, stability, monopoly and chaos will need to be dealt with if we do not continually continue within that cycle.

On the Matter of Waste

We do not like to waste resources. Often, especially when we have many objectives to accomplish and only so many resources, we avoid waste with great vehemence. Unfortunately waste is an inherent part of life, and cannot be avoided. Moreover, waste is often, and in many cases, the best thing that can happen.

When the resource is time, we are limited to one hundred sixty eight hours a week. When we sleep the time is not useable. Our eating time is wasted too if we wanted to use it to accomplish some objective. Failure to allow this waste creates far more waste. Some objectives such as sleep are mandatory.

Some waste is elective, but carries a severe penalty when neglected. A landlord instructed her agent to overlook any repairs unless they were emergency repairs. The agent was limited to renters who would be willing to rent under these conditions. As the paint peeled, and carpet wore, the ability of the agent to rent the house deteriorated until the possible renters were fewer and fewer. Under these conditions the possible rent was never raised, and the return to the landlord slowly eroded. In this case, lack of a yearly allowance of $3,000 for ordinary maintenance reduced the rent by up to $6,000 per year, and in time would have eliminated the ability to rent the house completely.

But even more waste arises neither by necessity, nor election. As money moves from hand to hand, some of it falls between the cushions of the couch. This type of friction in the system occurs at every level of every activity. Companies inadvertently overpay vendors. Theft arises from customers and employees, and time and other resources must be used to deal with such problems. Customers, who have stretched their resources to the limit fall ill and cannot continue to meet their obligations. No management will ever be perfect, and mistakes cannot be stopped completely.

The constant losses in the financial cycle as money is lost and wasted create a situation where replacement of money is a necessity. If the lost money were never replaced, eventually there would be no money circulating at all.

Another source of waste is essential to the survival of any economic system. New techniques are always needed when resources tend to become obsolete or used up. Troops of howler monkeys in South America often strip all the leaves from the trees they are in. Before that time one or two young monkeys wander to other trees and start eating those leaves. If these young monkeys are not poisoned by the new trees leaves, eventually the whole troop moves to that new tree and begin to feed on its leaves. The venture by the young monkeys is not without the risk of poisoning, but the whole troop would not survive if it did not risk the lives of the few.

Businesses that do not take similar risks fail. Homestead Industries once was a thriving company selling valves. A quality valve designed to the meet the requirements of the day, the valves sold well. But when technical advances occurred, the company had not invested in keeping up with new products and their valves became superceded. The company went bankrupt and ceased to exist.

There is a risk that customers will not pay according to their agreement. To sell to only those who are guaranteed to pay causes a business to restrict its business dramatically. If such a company sold only to one hundred customers who were guaranteed to pay, by allowing a risk that five percent of their customers would never pay, they might be able to sell to one thousand customers. At $100 per customer, these businesses could increase their business from ten thousand dollars to a million by risking fifty thousand.

The most serious place where this element of risk is currently creating havoc in America is in the field of medicine. Treatments for any diagnosis are predicated on the likelihood that that treatment will react with the disease in such a way that the patient will be better after the procedure than before. But procedures are based upon past experience and patients are notorious for having different reactions to different stimuli. Betsy is allergic to penicillin, John is allergic to milk, Bill is allergic to peanuts and I can't eat strawberries. The very diversity of the human condition makes it clear that no two people will react to the same procedure in the same way. The result is that every medical activity runs the risk of an unfavorable result, and people who agree to having the procedure take that risk regardless of what is supposed to happen.

Having taken this risk, however, and acquiring an unfavorable result, the patient wants to insist that the doctor be infallible. He is expected to guarantee the process. If a person becomes disabled by the procedure, the doctor is expected to replace all of the earnings that the individual supposedly would have earned during his lifetime. Here the five percent of the people who have unfavorable results end up costing the rest of us more than the total amount of medical expense that we would ordinarily pay.

The reality that a doctor is incompetent is still with us, but risk management should address the removal of the cause of the bad procedure rather than compensating the individual who chose to take the risk. Malpractice lawsuits should be addressed toward removal of the doctor from medicine until he becomes competent, rather than paying the patient for the patient's own risk taking.

Waste involves risks, but is not limited to risk taking. Hurricanes, wildfires and terrorists cause waste that is never in the control of the victim. Some of these are expected and occur on such a frequent basis that the amount of overall risk can be determined realistically, if not with certainty. A certain number of buildings catch fire in any one year. If all buildings pay a percentage of the costs of all fires in a given year, those whose buildings catch fire can replace those buildings from that fund. This understanding gives rise to the industry of casualty insurance

Some other casualties are never predictable. These catastrophes, such as hurricanes, must have some other mechanism to restore the victim to his situation before the event. Here no private organization can meet the need for recovery. The government of the United States has developed the Federal Emergency Management Act for this purpose.

Another source of waste is the lack of economic value in the tear-down phase of economic activity. A previous chapter dealt with the three phases of economic activity, Setup, operation, and tear down. Venture capital can be expected to develop future value. Revenues are available to continue current production. When an economic activity can be replaced, as in the reuse of an automobile assembly line, the removal of the old line is a part of the setup of the following line. When an economic activity is stopped, however, without any replacement, there is no reason to restore the situation to what it was before. The product cycle which consists of a move from no value, to value and then return to no value in any product precludes an economic reason for activity to eliminate residues. Brownfields and dumps are the result of this process. If restoration of the conditions existing prior to the shutdown of a process is an objective of the society involved, then funds must come from some other source than economic activities.

Restoration of these sites would not be necessary if humans were not reaching the point that the sites impinge on the ability to continue living. When the world population was much smaller waste was placed in middens. Middens are adjacent to every archeological site and provide the most revealing information about the activities of the inhabitants of the site. Broken pottery and other artifacts are far easier to find in these sites than anywhere else. A new and entirely different attitude toward the remains of civilization will be necessary before conditions are renewed that currently create far too much residue.

Such an attitude is required when designing packaging and other temporary articles that will be used and then discarded. At one time tin cans were closed on both ends with caps. These cans, when crushed, popped off both seals and flattened fully. It became easier to form one end of the can and cap the other. The resulting can could only be flattened on one end. When such cans were fully crushed, they still took twice the space that the old cans took, and doubled the space needed to dispose of them. Other packaging became stronger and less amenable to compression. The combination of technology and a wish for stronger temporary storage of products created such an expansion of waste products that landfills and other waste disposal has become a major problem in America.

Design failures in more permanent structures can also cause waste. A hospital was designed to meet the needs of a certain community, but maintenance considerations were not made. Utilities were placed above a solid ceiling and under the floor above. To maintain these utilities created a very difficult problem for the maintenance employees, and often when a change was needed, three times as much labor was needed as would have been required if the utilities were easily accessible.

A failure to understand the objectives of the users can create waste among most producers. General Electric Outdoor Lighting Division insisted on quality that would last for twenty years, and did not understand why their competitors were able to undersell them in many markets. A review of buyer's habits would have shown that most outdoor lights were expected to be replaced in five to six years. The competition built a product lasting only five years and easily undersold General Electric. This failure to build to the buyer's requirements, and not to the producer's idea of what the requirements should be, cost the company many sales.

John Deere builds a quality lawn tractor. Owners can expect to use the tractor for fifteen years with few major repairs, and these repairs easy to fix. Homeowners typically remain in a house for an average of seven years. It is cheaper for them to buy a less expensive tractor that will last several years, and then buy a replacement, than to use money that has a significant present value and then abandon the better quality mower after only seven years.

The misunderstanding of the requirement of quality is pervasive in our culture. Ann Landers was once asked by a nurse to explain, when shoes were ruined by medicines and other chemicals that fall on them during medical procedure, why there was no inexpensive shoe that the nurse could buy for temporary use. Her reply dealt with the fact that good quality shoes were easily available. Quality barrels were designed to be used in dropping napalm on Korean War targets. Pilots repackaged the napalm in Japanese barrels, because the quality barrels would not break open when dropped on their target.

There is a role for quality products, but the indestructibility of these products and the overbuilt and overpriced use of quality when it is not needed create a major problem in taking care of these products when they are no longer needed. Quality may be a cause of waste in these conditions

Design failures in more permanent structures can also cause waste. A certain hospital hired an excellent architect to build a facility. These architects did an excellent job, except that the matter of maintenance was overlooked. The hospital was designed to meet the needs of the community, but maintenance considerations were not made. Utilities were placed above a solid ceiling and under the floor above. When a pipe broke, or a change in use occurred maintenance personnel had to rebuild the building where the change was needed. To maintain these utilities created a very difficult problem for the maintenance employees, and often when a change was needed, three times as much labor was needed as would have been required if the utilities were easily accessible.

The example that the Boeing Company provided in the building of the 777 aircraft was and should be followed in cases like this. Input from the user and others who will need to work with the product in the future reduces this type of waste. Waste is a pervasive and necessary part of economic life, but it cannot be funded from ordinary economic activity, and should be dealt with in the designing and producing of products.

Understanding and dealing with the element of waste, both as a necessary ingredient of economic activity and as a problem for future activity is essential

The Current Nature of Value

There is a story of a doctor whose father asked him to loan him a thousand dollars. When he was refused the father said that he had conceived him, raised him, educated him, and set him up in practice. "Why can't you loan me the money?" The son replied that he knew that his father had conceived him, raised him, educated him, and set him up in practice, but added, "What have you done for me lately?"

The expectation of willingness to repay his father makes this a very macabre joke. We do invest in our children and expect them to reciprocate. But this is an investment, not an expectation of quid pro quo. In economics, the story is not macabre or even unexpected. Value is always a comparison of current value of one item to the current value of another.

The difference between the idea of currency in economics and our wish for investment to succeed is a subtle one. We like to believe that what we save can be spent later. Since time immemorial people have been surprised when their savings have not held their value, but the realities of economics are that what is valuable today is valuable only in the context of today.

During World War II, people bought war bonds to help the war effort. Immediately after the war prices began to climb. Values of consumer goods in the fall of 1946, one year after the war was over, commanded one half as many dollars as the same consumer goods four years later. What could be bought with the savings that were represented by war bonds was reduced in value by half.

For example the idea that Social Security is a matter of savings for retirement is a fallacy. By tying the payments to current earnings of wage and salary workers, the current value of the payments insures that payments are a portion of spendable income that has a constant relationship to overall spending by the general populace. Money that has been taken from a worker's wages is not saved and then returned to him. The money that he and his employer pay into the system is paid to another person, sometimes a retiree, sometimes a disabled individual and sometimes to a minor child. Upon retirement, the worker will not receive the money he has paid out, but his share of the current earnings of other workers. Since the percentage of spending by individuals who rely on social security remains constant, whether the level of wages goes up or down, the ability of the recipient to continue to participate in the current economy continues and in a proportionate manner.

Recent efforts by many individuals to tie social security to savings and investments fail to notice that savings remain constant when prices levels change. A person with bonds with face value of $50,000 in 1945 would have needed another bond of the same amount to make an equally valuable purchase in 1950. In five years, the price of anything that could have been bought in 1945 had doubled. On the other hand, an airline pilot who retired with a stock pension in 1975 found that stock prices had declined so precipitously that the fund was exhausted by the same time the following year.

Investments are just that, investments. They are an attempt to use resources that are available and not restricted, to increase other resources. Some are successful, others are not, but they are never in any way related to the current level of continued spending. Since these investments are also not related to the current value of money, their value increases or decreases independently of any other economic consideration. Savings are necessary to provide resources for future activities, but once put to use take on a life of their own.

At any time the perceived value of things that can be purchased is equal to the perceived resources that can be used to purchase them. Earlier chapters have dealt with the mechanism by which resources are apportioned. In every circumstance, the apportionment is only valid in light of what can be done at that specific time.

More about Money

By this time the reader will have realized that this organic point of view differs significantly from the point of view that economics is a study of the distribution of scarce goods. This different point of view requires a change in the roles of some of the other definitions that figure so significantly in economics. Money is described in conventional economics as a medium of exchange and the exchange is the basic unit of the study. Money requires a different definition in organic economics. That definition can be said to be that money is the benchmark of value both within an economic structure and between such a structure and the larger organism of which it is a part.

In an earlier chapter, we quoted a book concerning the effects of soldier's money on the economy of Mindanao at the end of World War II. It showed the effects be devastating when the value of the currency, could no longer serve as a reference point for value. Maintaining the value of money in ways that people can relate to it, is essential to maintaining a sound economy.

Specie is another word for cash money. In colonial America there was little specie in the form of English pounds. New England used the Spanish real, or piece of eight, so called because it was designed to be broken into eight pieces (bits, -- two bits is a quarter) if the need arose for smaller denominations. Under the mercantile system then in force, trade with any foreign country was illegal. The possession of Spanish money inferred that there had been some trade with Spanish dependencies and that they had broken the law. In that case the people of New England could not pay the stamp tax without admitting that they were criminals.

In Virginia, on the other hand, the specie was tobacco or claims upon tobacco. Tobacco had a value that was regular and could be exchanged for other things at any time by transporting it to England. Tobacco was divisible. Exchanges could be made for one leaf or a whole platform. Tobacco was stable; it could be stored and kept for long periods of time. All these attributes made tobacco a medium of exchange.

But tobacco had an additional attribute that enhanced its value. A person could relate his assets and his income to the value of tobacco. His total income included so much tobacco, and he was able to decide how much more he needed, or how much he needed to reduce his outgo to keep within his income. The value he assigned to the tobacco he owned corresponded to the value every other person in the community assigned to what tobacco they owned. Tobacco allowed the integration of each part of the economic system of Virginia with the whole. This role of money is the difference between the common idea of a medium of exchange and the idea of a stable reference point for value. It indicates a different role for money as an aid to in integration of an economic system.

At this point we can look at the cause of the American Revolution not as taxation of Americans by British, but as the manner in which the Americans were assigned an impossible role. That impossibility was not known to the parliament that imposed the stamp tax. For the New Englanders to pay the tax they would be subject to imprisonment. For the Virginians to pay the tax they would have to send tobacco to England, exchange that tobacco for coins, ship the coins back to Virginia and then pay the tax. The tax receipts would then be shipped back to England. Had the Parliament had any member who was familiar with the situation in America, they could have been made aware of the situation, and avoided the irritants that made the Americans rebel. No taxation without representation, then, was not a battle cry, but a plea for understanding. That the plea was not heard meant that Parliament lost its influence in America.

Gresham's Law

The role of money as a reference point for the apportionment of resources within the economic entity and between different entities is a coordinating role. As such it cannot share its role with any other entity. Coordinating roles require that one and only one source of activity be allowed to exist. The price of tobacco in England often varied as other needs were felt by the English. To use English both coinage and tobacco as the backing for money meant that the price of documents could never be determined in advance. A colonist needing a document recorded could never be sure how much tobacco he would need to take with him to a closing to acquire the coinage that would be needed to record the document.

Since coinage would never have a constant value in terms of tobacco, it was impossible to value it over time, so the more constant value of the tobacco caused the colonists to get rid of the coinage and hold on to the tobacco. Later, economists noted this phenomenon and restated it as "bad money drives out good." This law is called Gresham's law.

If a Virginian bought a piece of land for two hogsheads of tobacco, it is possible that he really didn't need to physically move the hogsheads to his own farm. That movement was not really necessary and involved a great deal of effort. As long as the two farmers trusted each other, some evidence of ownership of the tobacco was all that was needed. A warehouse receipt would serve for the proof of ownership, and the seller could instruct the buyer later as to what he wanted done with his tobacco.

When later, America went on the gold standard, a gold certificate, like a warehouse receipt, substituted for the actual gold and our modern system of bills, including silver and gold certificates became our currency.

In 1932, America went off the gold standard. True, gold was pegged at $35.00 an ounce, but Americans were forbidden to own gold. Without a benchmark to determine the apparent value of money, money lost its value. The depression was a direct result of the opinion of the people that money could not be relied on to retain any value. Until the Second World War there was no way to determine what the value of money was. When America needed the labor of all the people, labor became valuable. Commodity labor, defined by the minimum wage, allowed people to compare their available labor to a fixed amount of money and determine the value of goods and services available to them in terms that they could understand. At that time, in the eyes of the people, a dollar became equal to a value that they could understand and which was available to them. Since that time, money has effectively been backed by the labor of the people. An example of the relationship between the minimum wage and price levels occurred during President Nixon's term. A change in the minimum wage from one dollar to one dollar sixty cents caused all prices to advance by sixty percent between March and August.

Money goes from hand to hand -- and quite often during that process it gets dropped. Money is lost in cushions, bad investments, ventures that fail, bankruptcies, and other waste. Money is invested in prospects that end up having no value. When this happens, the part of the economic cycle that loses the money becomes less able to be part of the overall economy.

Social Security is one way this problem is overcome. The elderly are no longer able to provide the value that younger people can and would be unable to exist if something is not done to include them in the economy by providing them with the ability to participate. The value of the money they receive is maintained by tying it to the labor that currently is provided by others, and the value of the dollar is maintained.

Welfare is another means by which funds are provided to those who cannot overcome the inability to obtain funds. A mother's contribution to continuation of society demands that motherhood be supported. A husband is expected to fulfill that role, but all too often the mother feels her responsibilities as a mother are not shareable, the husband is dead, she has marries an irresponsible man, or she simply doesn't know what is involved in being a wife. When these things apply, she is not supported by any one person, even though her role is crucial. Welfare is an attempt to save the situation.

One of the biggest wastes society encounters is the waste of time and effort needed to reproduce itself. Sometimes the young are conceived before the parents are aware of the additional costs in time and effort that is needed. Usually the parents are young themselves and haven't experienced the difficulties they are incurring when they think they are simply enjoying life. As a result, the young need what the parent or parents cannot provide. The children are put at a grave risk that must be countered. The purpose of welfare is to overcome this problem after the situation arises.

Another purpose of welfare is to provide for those who, through no fault of their own are no longer able to participate actively in the ongoing continuation of the economy. A state representative had an employee who worked for him for thirty years without paying into social security. At seventy he tried to retire. Without social security benefits, the choice this employer gave him was to continue work, or nothing. He tried to continue work but couldn't. This would have been the purpose of welfare, but the employee starved before it could be instituted.

The value that is developed by a money system must be made available to those who would otherwise be unable to participate, or the system, like a bleeding body, will die.

Another need for adjustment in the system arises in a different way. A worker picks apples in October, but he must eat in February. If he is to pick apples in the following October, there must be a way for him to buy food in February. When we have money that we will need later, we bank it until that need arises. When General Motors reduces production because of slow sales, it banks the skill and training of the employees it does not temporarily need by unemployment insurance. Prior to the depression, each time the auto companies reduced labor needs the employees were place on their own resources. No company could absorb the costs of insuring the return of their employees, because the additional costs of insurance would make the competing auto companies more profitable and reduce the company's ability to continue operating. The federal requirement that all companies contribute to such a fund without exception made it possible for these companies to retain the skills and training that would otherwise be lost. The loss of these skills and training would have acted as a bleeding sore in the economic organism.

Some time ago, the manufacturers of lawn equipment had no deadman mechanisms on the machines they manufactured. No manufacturer was willing to put this additional safety feature on their machines because they had no assurance that anyone would pay the additional cost that would be required for the installation of the part. No investment will be made where the amount invested will never be recovered in some type of value. Where the value involved can only be expressed in money, the additional costs that others will not pay demands that the investor not make that investment. The change was made only when regulations required every lawnmower maker to put deadman devises on their product.

This is the essence of an economic scissors. One blade is the fact that no individual will willingly pay more money for a good or service if he can pay less for the same quality, and type of purchase. This rule sets a maximum return for an investment. The other blade is the rule that if someone else has less expense, he can sell the product for less. If a plant in Juarez, Mexico can produce a product for only its normal costs, and a plant in El Paso, using the same labor, materials, and overhead must pay social security, there will be no plant in El Paso, Texas.

If a plant in a major market, using minimum wage labor, can produce a product and sell it locally, no plant away from the market, and also using minimum wage labor, can compete if it must also pay transportation to the market. This scissors action creates urbanization, and destroys rural economies. While American urbanization had advanced, at one point, to the point that five counties in the United States held twenty percent of the population, that concentration has been mitigated by the social security system that returns some of the earnings of the urban area to the rural economy. It is different in Mexico. In Mexico, there is no rural economy and even the urban areas contain many situations where no investment is possible. Illegal immigration from Mexico into the United States is a direct result of this effect.

The maintenance of an effective cash flow throughout the whole economy is essential to the continued existence of that economy.

An effective cash flow is a part of the after transaction economy. This is to be distinguished from the before transaction economy. Understanding the difference between the two economies, before and after transaction, is essential to understanding the effect that each has upon the other.

Once a transaction has occurred, an entirely different set of rules and requirements is in control than is controlling in the economy before the transaction. After transaction economics is controlled by prices that are already determined. That determination is based upon considerations that are part of the before-transaction economics. Before that point, values must be reported in ranges of price. A buyer will pay up to a certain price. A seller will sell down to a certain price. The value of the transaction will be in a range of values between the price a seller will accept, and a price that the buyer will pay. This means that identical goods will sell at different prices to different people. If I am offered a pencil at ten dollars and I need a pencil badly, I may pay ten dollars for that pencil. The seller may have only one pencil left after I buy mine and only one person is interested in it. If he will only pay ten cents, the seller may sell that identical pencil for that amount. Both sales are within the value range of the before transaction economy. The after transaction economy has a different value for one pencil than the other. That price is now set in stone.

Once the price is set in stone, there are some different considerations to be concerned with. Every transaction involves a source of the funds and their disposition. This movement of the funds develops a flow that requires physics rules to understand, rather than static studies. For example, physics shows that cars traveling sixty miles per hour take half as much roadway to handle the same number of automobiles as a roadway where traffic is limited to thirty miles per hour. A dollar that is used in a transaction on each day of the week is counted seven times as often as the same dollar used only once per week. The first supports seven dollars in goods and services, while the second supports only one. There is only one dollar in specie in either case. The study of post transaction economics, then, includes an understanding of not only the quantity of specie available, but also the frequency of its use.

There is another aspect of post transaction economics. Every transaction has both a source (credit) and a disposition (debit) of funds. For this reason all the expertise developed in conventional accounting comes into play. Included in this expertise is the nature of expenses as opposed to assets. This aspect leads to the study of economic waste. Waste is essential to the continuation of the economy. Every setup and teardown expense is a waste, yet without these expenses, no economic progress could exist. Normal wear and tear of specie, and mistakes of bankers also reduce the quantity of money available for the continuation of economic activity. Bankruptcies, casualty losses, and deterioration are normal aspects of economic activity. The quantity of funds available for use in activities is constantly being reduced.

In the past this problem was addressed by finding and mining gold, or other specie. The history of America during the turn of the twentieth century revolved around the efforts to make specie of the metal silver. Gresham's law, where good money drives out bad, was used to stop this effort, but the problem continued. During the nineteen-twenties, frantic economic activity created the illusion that the problem was solved, but the slowing of that activity in the nineteen-thirties created a period of depression. The requirement that people work without the right to spend their earnings during the Second World War created a reserve of funds that fueled a major expansion during the next decade. As these funds became exhausted, a new credit system of store accounts allowed the expansion to continue. As this became exhausted, bank lending continued the phenomenon. Credit cards eventually increased the specie available again. The current lack of available funds to the next generation makes it clear that there is a problem.

This problem has been addressed in the past by various means. Social Security removes funds from the normal activity of the economy, and uses it to cover certain types of waste. Welfare and unemployment insurance cover more. The insurance industry provides a means of covering certain types of waste. Government projects such as

NASA inject specie into the system. All of these efforts provide a counter to the continuous loss that an economy suffers from waste.

Post transaction economics has another attribute. Since every fund exchange has both a source and disposition of the funds involved, statements of economic activity that do not balance are, by nature, incomplete. The complete report will appear to be precise, and carry a feeling of certainty with it. Confusion between the seeming certainty of mathematics and the reasonableness of statistics allows this appearance, but it is false. There is nothing certain in statistics.

The Second Digression Again

At this point it is necessary to return to the second digression. Measurement of post transaction is done by statistics. People often confuse measurement by mathematics with measurement by statistics, and this confusion creates a real problem.

The introduction of set theory to arithmetic created a difficulty for teachers of mathematics that has not been overcome to this day. Mathematics is a language that requires certain basic assumptions. Among those assumptions is that mathematics is certain and precise. In order to be precise, a corollary is that each unit in mathematics is discrete and separated from every other unit, and that every unit is identical to every other unit. This precision allows relationships to develop that are certain and sure. The nature of the integer allows the learning of those basic relationships in math.

Percentage math also allows a certainty, but percentage math is more difficult to understand that plain math because it no longer has a basis in the integrity of the integer or unit. A percentage of one unit may be exactly the same percentage as the percentage of another unit, but because the units are different the amounts that result are different. Buncombe County, North Carolina, had a growth rate of ten percent, while Henderson County, next door, had thirty-eight percent. Buncombe's actual gain was 17,000 people, while Henderson's was 16.000, because Buncombe started with 170,000, and Henderson started with 48,000. Since the units were different the results were different. This distinction is vital in understanding the nature of economic structures.

But statistics is not math and is not based on any certainty. Use of the same words in math and statistics gives the illusion of comparability. The actual circumstance is that they are based on entirely different concepts. Statistics is not based on the unit, but upon the empirically discovered rules of the laws of large numbers. These laws revolve around the fact that after a certain number of units are observed, numbers tend to repeat themselves, rather than be new numbers. Since almost all people are between four feet and eight feet, and there are only forty-eight inches between those extremes, it is only logical that after forty-eight people are measured, there will be two with the same height. The laws of large numbers are based upon the fact that in forty eight people, there are not likely to be twelve people over seven feet and twelve under five feet, so the numbers will repeat far sooner. This means that measurement by statistics has no certainty. What it has is an ability to compare the likelihood of what it measures to be inferred.

And Now Back to the Subject

These statistics are by nature incomplete. While the numbers to give a complete picture of the economy must have as many sources as dispositions to be complete, many transaction that do occur will be left out

Post transaction economics is based upon the transaction, Pre-transaction economics is based upon the economic structure. Economic structures have the attributes of organisms.

Each organism has common characteristics that belong to all. All organisms exist in a particular environment. Each is made up of many specialized parts, which may be organisms as well. Each requires nourishment, and a means of disposing of what is no longer useful to it. Each retains a structure that is stable and defined. Each renews itself by disposing of parts not working and building replacements. Each leaves a seed, spore of other reproductive body that enables replacement when the organism no longer can function. The nature of an organism enables a person to identify it as an organism, and differentiate it from any non-organic material. The characteristics of an organism require that all the items mentioned above need to be present.

An economy exists in a particular environment. All economies have many parts, which may be economies as well. An economy flourishes if there are resources to nourish it, and produces waste, which must be disposed of. Economies are stable with definable limits. An economy recruits new businesses to replace failures. Books define the activities of economies and allow replacements. The nature of an economy can enable people to recognize it as an economy, and differentiate it from other economies. All the requirements that apply to an organism are present in economies. To study economies as if they were organisms is appropriate, and to be desired.

The histories of many countries bear this out. China has a long history, and in that history there is a continuous alternation between the concentration that develops from monopolies in a stable situation, and the chaos and revolution that occur because of the need for relief from such concentration. Mexico and other Spanish-American countries have the same pattern of stability and chaos. England had its war of the roses and stability under the Tudors, followed by the English Civil War. Where stability has prevailed for long periods, an inflexible social system has developed that restricted everyone to specific roles. Such a system arose in Japan. Prior to the opening of the country to the west in 1854, the country was divided into Daimyos, each of which developed a place for every citizen. If the citizen chose not to fit into that role, He was subject to death.

The economic organism develops with certain unchanging rules. All activities are determined by the perception of value. Value is a determination of need, and exists as a yes/no decision. That decision can be stated as "Do I value this greater than that." What I give up has to be less valuable to me than what I receive. This decision consists of two parts, First, do I have the value that I can give up to consider this transaction, and second, "what relationship does this value have to the overall value available to me. Here money gives us a reference point. At no time will an economy allow anyone in it to spend more that he has or can get. This rule, that if your outgo exceeds your income, your upkeep will be your downfall is an inflexible and controlling rule of economics.

Money, then, has a real and important role to play in economics that is not limited to being a medium of exchange.

Zen versus the Apocalypse

When anyone buys a gallon of gas at a service station, the full tank of gasoline can be divided into individual molecules. To do that would be stupid in practice, but it is very revealing when we think of it that way. Each molecule burns at a different time and its economic value is based upon that burning, when it actually fulfills an objective. The objective is to make the car move. When it burns, the explosion pushes the piston and causes the engine to turn. This is the reason that gasoline was purchased in the first place.

Each molecule has its own history. One was extracted as part of a crude oil barrel in Kuwait, another from crude oil in Mexico or Texas. Other molecules of the same barrel were separated, and went to pave a street, or become part of a polyester thread in a shirt. After a long process, that particular molecule along with others just like it arrived at your service station and entered your car. Until you burned it, as you drove, the value was always a potential value. At the moment it burned it showed its value. Once it burned, it no longer had value.

Like a railway carrying goods, the refineries and oil wells involved in producing that molecule of gasoline exist to move the gasoline and other products of crude oil from their source to their final uses. Production at these facilities is continuous. If there is no specific attempt, we can never identify a specific part of this flow. The process does not allow us to look at any particular molecule of the oil as separate from any other one. The idea of continuous flow is similar to the Buddhist idea that all nature continues to flow and we are a part of it. A good word for this idea is "Zen."

The opposite idea is that everything is coming to a climax. We find this idea exemplified when a house is built. When we build a house, we do not expect that there will be another house just like it. There is a start, a set of actions, and a finish. Once the house is built, we do not expect to see the process continue. Even though the builder may build many houses, each is separate and stands alone. This idea of a climactic event is exemplified in religious references to the apocalypse.

Process activity (Zen) and project activity (apocalypse) are two entirely different ways of looking at the world. To many people, no matter how vital, process activity is boring. We read books based on murders, because a murder can be identified and a solution of a specific, identifiable situation is dramatic. We look for closure, and attempt to bring the world to a tidy, understandable, controllable size. Once we do this, however, we start the process all over again. When we have read the murder mystery and solved the plot, we buy another book.

Polio was a crippling disease during the time of World War Two. The march of dimes looked for money to combat the disease. When vaccines were found that eliminated the problem, the March of dimes was left without a focus. Instead of disbanding, it chose to focus on another problem, birth defects. While we like to think of life in dramatic fashion, we have to live it in continuous, but undramatic fashion.

People who look at the world in zen fashion typically do not find themselves at a loss when death occurs. Because they feel that death is a part of life, they are able to continue operating without feeling that they have been deprived of something important. People who look at life from the apocalyptic point of view, however, require grief counseling, and other aids to overcome their fear of loss.

When we discussed the Civil War and found that it was an economic threat that caused both the war and the almost vicious response by Midwestern states, we found the dramatic, and climatic role of slavery in that war to be an illusion. However, the publicity and inclination of people to believe that the war was fought on higher principles than "money" gave slavery the role of villain. That slavery was not abolished, but only changed in form, from slave to sharecropper, was overlooked. As an apocalyptic nation we always need see ourselves as accomplishing a noble purpose.

Sometimes the purpose appears silly. Over a million dollars was spent once to free three bowhead whales from the ice in Alaska, because publicity had made them the cause celebre. Eskimos who had been in real need of whales to survive the winter immediately chased, harpooned and killed them, -- but the efforts had "saved the whales."

At other times apocalyptic thinking has had devastating results. The disaster of prohibition in the early part of the twentieth century created a profitable business out of the destructive use of alcohol. Effort to clean the pollution from power plant smokestacks has produced acid rain.

It works this way. When coal is burned to produce electricity, acid and alkali are separated. Without intervention as they cool they reunite into salts that precipitate as soot. The resulting salts are unsightly, but they can be cleaned up and do not cause any irreparable harm. When only the alcholies are removed, however, the substance that remains is acidic. Acids must find alkalis to become stable again. Life cannot exist in a totally acid world. This illustrates that efforts to make the world conform to human ideals can be disastrous.

We believe that we can solve problems. This idealization of the power of humans to overcome the realities of the world they live in arises from two sources. The first is the necessity of obtaining coordination of the activities of humans. Since it is important that one person not destroy the efforts of another, coordination is essential to survival of the species. Humans have such diverse interests and ways of surviving in the world that dramatic episodes are needed to obtain cooperation of such a diverse group.

The second is a misinterpretation of what we call scriptures. Scriptures are those myths, legends, writings, and common ideals that illustrate the expectations that people have about one another. These ideals are essential to human coexistence, but cannot cover every situation, nor be applied to every circumstance. Interpretation of these moral norms, whether Bible, Quran, Torah, Bahagavad-Gita, or any other statement of expectations allows the misinterpretation that it is all inclusive. This in turn allows the user to feel that there is only one way to act.

A certain woman had a happy marriage, a healthy daughter and a good life. She was pregnant for the second time and enjoying a camping trip, when she suddenly became very ill and lapsed into a coma. After a quick trip to the hospital, the doctor found that she would not recover from the coma, as long as she remained pregnant. They preformed an abortion, and the woman recovered. Allergy tests determined that she was allergic to hormones produced during pregnancy, and she was warned never to have another child.

Current efforts to prohibit abortions would have penalized the doctor for his action. In saving the woman's life, he would have been subject to fines and jail time because the procedure was illegal. This effect of the efforts of those who believe that scripture is all inclusive would be to reduce the availability of medical help for those who need it. This reduction of resources is an economic event, directly resulting from the idea that morality and laws can cover all possible circumstances.

This problem illustrates the difficulty in determining what is best for humans and how to achieve it. One of the best supports of the economy of the United States is the idea of the separation of church and state. Certain catch phrases, such as "The government governs best when it governs least" tend to indicate that the role of government must be limited, and so we need to look closely at the objective of having a government. What is it that the government is required to do?

The objectives of government are two. The first is to eliminate threats to the survival of society. Police and legal systems are directed toward this. The second is to do the things that are necessary collectively when they cannot be done individually. Neither of these objectives demands action when a situation does not affect society as a whole. When moralists demand a law to cover something that, in their mind, is a threat to society, they direct government into areas where it cannot be successful. As long as society can survive without the law, the law will either be restrictive to life, or be ignored.

The alternative is uncertainty. When Zen economics is involved, the uncertainty occurs when there is a change that affects the value of the product. During the time that a process is producing something that is valuable, all the certainty that is required for economic activity is on hand. The sudden arrival of uncertainty causes people to look for certainty in other places when the product that they relied on, and its related processes, lose their value, -- as with buggy whips and steel production. Usually the places where they expect certainty are religion and government.

Certainty cannot exist. Project (apocalyptic) thinkers understand this. Real estate salesmen know that every prospect will not result in a sale. If one sale in fifteen tries is successful, they may consider themselves successful. The ability to live successfully with uncertainty is a hallmark of the entrepreneur.

Yet the services of people with a process attitude, and a need for certainty, are essential to the continued success of our society. Mothers, teachers, policemen, factory workers, and others need to know that they will receive a sufficient amount to live on so that they can continue to contribute to their world. These people do not need to be wealthy, and needs are not the criteria for insuring that they have sufficient resources to contribute. The nature and quality of what they contribute is the controlling factor, not needs. Socialism includes the phrase, "To each according to their needs." The appropriate phrase should read "to each according to their willingness and ability to contribute." A clear example of where this difference would be evident would be college scholarships. Financial ability has no relevance where the expectation is the contribution the individual will make to society. Here the financial support for college should be based on prospectuses of the student of his intentions, not his needs.

College is not for everyone. In fact some studies of India indicate that economies cannot absorb more than seven percent of the population in academic endeavors. The use of college monies for individuals who have not determined that they will contribute to society in the future is an unacceptable waste

Commodity Labor

When the discussion was about the nature of a gas molecule at the beginning of this chapter, the gas involved is called a commodity. Corn, oil, other grains and any item that does not require that a specific item be specified are given the designation "commodity." To be a commodity it is only necessary that there be no differentiation between on item and all the other items like it. A baker needs flour for his product, but if one bag of flour isn't good he simply purchases another. This definition of commodity not only fits these products but most labor as well.

When milk prices become too low, farmers have been known to pour their milk on the ground to avoid further lowering of prices. Apples have rotted in the orchard when prices were too low to justify picking them, and workers have formed unions. Labor unions have been a boon to the economy because they have stabilized wages to the point that workers could remain on the job, and a part of the economy.

Farm Interest

Farm income is apocalyptic, interest is periodic. Each year on the farm is a separate project, with a definite beginning, growing season and harvest to complete the cycle. Production loans and crop insurance together allow the financing of the yearly crop to be closely allied to the production of the farm, but capital improvements on a farm that last beyond the crop year are the most serious risks that farmers take.

Farmers must buy land, build barns and buy equipment that cannot be covered by the successful production of a single year. When this happens, the interaction between the project income of the farmer and the periodic requirements of the banker is influenced by the mathematical scissors. When crop receipts are high in all years, there is no difficulty in matching the income of the farmer with the income of the banker. However, when the income of the farmer drops significantly in the second year, the requirement of periodic interest becomes destructive. What is logical in the first year can be bankruptcy in the second.

This mechanism is described in the description of the situation in Gaul at the time of the fall of the Western Roman Empire and in the dust bowl during the depression. Mortgage foreclosures on farms forced farmers to leave that area and created the Okies of California.

We, as part of an overall economy, need to determine the objective of that economy in allowing farmers to farm, and recognize that their contribution to the economy deserves the adjustments needed to keep them going. If the interaction between periodic interest and project farming can cause the economy to fail, an adjustment in periodic interest to match project income is in the public interest. Such an adjustment would state farmers interest payments in terms of a percentage of farm income rather than a set amount. Bankers in turn could establish a form of insurance that would enable them to continue to operate as well.

The Nature of Vestment

A professor taught principles of economics. A student noticed that although the supply side of the economics was covered amply and well, the demand side of economics was not covered at all. After looking at this he asked the professor about the possibility that the demand side of economic should be given equal play. Had a study about the nature of the demand side been done? The vehement response was that the economist had to stop somewhere, that we could not study the whole of economics as fully as we would like. This puzzled the student, as the professor was a competent teacher. In an inspired moment the student realized that the motive behind that response was based upon the fact that the professor might have needed to restudy all that he had learned as a student and go through the whole process of learning new and different economic principles if the idea was pursued energetically. Had he been required to take the time to adequately study this different point of view, he would have had to invest much more time without receiving any income. He would have had to restudy the subject and reorganize it into a new course of study.

Like everyone else, the professor's living was an economic structure. He had so much income and so much outgo. It is important to remember that his outgo could never exceed his income. Economic structures deal with resources and needs. Of these two the most necessary is income. Once the professor had spent many years developing the lesson plans and studies that made it possible to stand before students and explain what he had learned he was able to expect that this investment would provide an income that would continue over a period of time. The question that indicated that there was more to be studied and a new and different interpretation of economics was a direct threat to the investment he had made in his studies.

His concern about relearning economics was based on the need to retain the resources upon which he lived. This involved spending time and study without income. The professor would have had to have done without income for a period of time before he could again teach if he had to relearn what he had been teaching. His economic structure was based upon the information he had already received about economics. The income he received and used to pay your bills came from his previously established understanding and ability to teach economics. That he would not want to lose what he had invested is not surprising.

Although each student in the class was a new and different challenge, the lesson plans had been developed to cover all the possible questions and insights that a student in the class should assimilate. Each student had his own course to follow in life and each was different from all the others, but the investment the professor had made would cover a particular time and study that would fit into that person's life. By continuing to enroll students into his classes, the professor could expect to continue the same course of study for many years. Each time he repeated the course he could expect to receive income that would cover his outgo.

Investment, vested interests and divestment are words that relate to this idea that a process or goods will fulfill and continue to fulfill the objective of the investor over a period of time. An investment is expected to provide a resource to accomplish some objective of the investor. Investment of a husband or wife in a marriage relates to the objective each wants to fulfill. If those objectives coincide and support each other, there will be a good marriage. If a husband wants to maintain an active life, however, continuing to work and be among people, while his wife wants to live in a solitary world away from people, and wants him there with her, either one or the other will be frustrated.

The vesting concept is most easily understood when the investment is in stocks, bonds, businesses or other financial goods and processes. (Investment in services cannot occur. That investment would be in the knowledge of process that provides the service.) Investment can occur with any objective, however, as we have illustrated above. Investment without a clear definition of the objective of the investment can be frustrated. That clear definition must coincide with reality as well.

Reality as Opposed to Appearances

We perceive what is real through our own eyes or the eyes and/or writings of those who observe the event. When others observations are involved, there are many filters that make that reality difficult to understand. Because the observer has only limited access to the event, because he has an interest in the effects of his reporting the event, and because of the imperfect nature of language, our perception of reality is faulty. For economic purposes the perception is far more important than the actuality.

Sometimes, the difference is extremely significant. As we have seen before, when fires burn in the open air, acids and alkalis are separated in the combustion, and reunite in the air to form soot. This soot appears dirty and soils the appearance of clothes and homes when it falls back to earth. To remove this dirty soot from the air and clean the air, Americans have enacted laws that electric companies "scrub" (or clean) the air from the combustion of coal for electricity. It is possible to remove the "dirty" air, but that scrubbing of the dirty air removes only the alkalis from the smokestacks emissions. The remainder of the air – acids – is far more significant in its disastrous effect than the soot. The appearance of clean air has caused the American Electric Power Company recently to purchase the town of Cheshire in Ohio. Cheshire is downwind from the company's power plant in Gallia County Ohio, and the acids developing in the air there have created extremely hazardous conditions.

An illustration of the way that reality differs from what is perceived to be reality can be seen in an analysis of Custer's Last Stand. That battle has been portrayed as a defeat for the whites ever since it took place. General Custer died, and lost almost a third of his command, yet when we go behind the hype and analyze the battle, it can be said to be a major victory for the soldiers.

The battle took place on a battlefield that is unique. Military texts refer to the difference between a military crest of a hill and the top of the hill. A soldier can lie down behind the military crest, and shoot down the hill without being hit. Most hills have a level place at the top, behind the military crest that provides some defense. King's Mountain battlefield in South Carolina shows a different kind of hill. The slope of the mountain continues to a point, and that point as well as every other part of the hill, can be exposed to rifle fire from below. All but one of the hills on the Custer Battlefield site are similar to King's Mountain. That one was the hill where Reno defended himself.

There is another distinction about this site. For miles around, the ground is semi-arid. Short grass allows dust to rise almost every time a person or horse steps on that ground. Behind the screen of the hills on which the battle was fought, however, the Greasy Grass River (Little Big Horn) allows a lush stand of timber and thick grass that is to be found nowhere else nearby. Dust from a thousand Indians would seem to be from only a few if seen from behind the screen of the hills. It is not surprising that Custer would assume that there were few Indians to fight there. When the battle began, the Indians were behind a screen of trees as well.

There were around fifteen hundred warriors at the Little Big Horn battlefield against six hundred soldiers. These warriors were well supplied with weapons, since they were there to hunt Buffalo. When the battle began in Reno's area there were only about one hundred and fifty soldiers involved, odds of ten to one. These soldiers retired rapidly, but to a new defensive position. Realizing the size of the enemy force and not being where they could stand a full onslaught, they retired again -- to the only hill on the battlefield that had a flat place on top that they could defend. There they remained for over a day, drawing the fire of the Indians and exhausting the Indians irreplaceable ammunition

Newspapermen from that day have labeled this battle a disaster and we perceive that it was. General Custer died. Two hundred and ten soldiers died, and according to the newsmen the regiment had to be rescued, but when the results are measured against the purpose of the battle, a different perspective arises. The purpose of the battle was to force the Indians to return to the reservation. Because the Indians had no ammunition to hunt the buffalo after the battle, they were forced to do just that. The purpose was achieved.

Even the casualty figures show a different aspect when looked at closely. Two hundred soldiers died, almost all on a part of the battlefield of knife edged hills where they had no possibility of their defending themselves, -- with more than seven Indians for every soldier. Four hundred soldiers survived an onslaught of fifteen hundred warriors for over a day. When the soldiers who died were attacked, the attack came from a wooded area where the enemy was hidden until the battle began. From all rational analysis, the Battle of the Little Big Horn was a victory for the army.

To attempt to correct the impression that the Battle of the Little Big Horn was a disaster would be foolish on several accounts. History has always been written based on impressions. Moreover, actions that were based on the perceptions about the battle are an integral part of the subsequent historical record. Folklore has been developed based on the perception that there was a disaster, and even classic movies would lose their value if an attempt to correct history were to succeed. Most importantly, what is done is done and cannot be undone. To waste time and effort in correcting what cannot be changed is futile.

But history can be manipulated. The newsworthiness of Custer's last stand encouraged newsmen to spend time following the Indian "Crisis." In their efforts to get a story where there was none, they manipulated impressions until the "battle" of Wounded Knee, a clear massacre, came to pass. Manipulation of news about the battleship Maine is said to have caused the Spanish-American War. Current manipulation of the news has destroyed reputations, and made fortunes for the manipulators.

A politician served in the Air National Guard during the Viet Nam War. He maintained his business at home but rose to the rank of Lieutenant Colonel based on flying out of a nearby base. Later, he was elected to political office. After deciding to divorce his wife for a younger woman, he had a stroke while in bed. He advertised his "patriotic disability," and used the advertisement to enhance his political capital. So long as he served his constituency, and provided what was needed for their welfare politically, the manipulation caused no harm, and even though, when he introduced the President, he espoused "family values" the validity of the issue of family values allowed his past to pass unchallenged.

There was a different problem for this politician. During his business life he had had an employee who was paid without Social Security deductions. When that employee was ready to retire, the Social Security Administration had no record of any employment. This politician refused to assist this ex-employee, and the employee had no money for food. He did not survive for long. This problem is different for two reasons. The first is that he did not follow the laws that he had been sworn to uphold, and the second was that he failed to care for a constituent. It is important to distinguish between harmful, and innocuous manipulation.

The Civil War has been ascribed as a war to end slavery, and the propaganda about slavery was a major cause of the conflict. However, had the Dred Scott decision allowed Northern states to provide refuge to fugitive slaves, the efforts of the abolitionist would have continued to be directed toward the individual slave who escaped to the North. Instead the efforts of all of the citizens of Northern States were directed at remedying the political problem of ineffective government. Slavery was the apparent cause of the Civil War, but not the real one.

Sentiment in the seaboard states, even after the war started, were expressed in the phrase, "Let our erring brothers depart in peace." Even the efforts of the Army of the Potomac were directed toward keeping the capital safe, rather than defeating the enemy. After the battles of Antitam and Gettysburg, the generals felt that the victory had been won and allowed the Southern army to depart, instead of destroying it. President Lincoln could not get the army to fight toward the defeat of the South.

In the West the battles were different. The very first one, at Phillipi in Western Virginia, found nine regiments determined to protect the B & O Railroad at Grafton. Not only was there determination to succeed, but every soldier was willing to spend the next winter in an exposed position on the top of a mountain, rather than risk loss of communication to the markets for their crops. After both sides found that they were barred by mountains from engaging each other again, both armies retreated to more suitable locations.

While every battle in the East was allowed to end in continued stalemate until Grant took command, every battle in the west was seen as apart of a larger effort. When Forts Donaldson and Henry fell, the army proceeded to Nashville. When Nashville fell, they proceeded to the battle of Shiloh. An Eastern General (Halleck) took over and proceeded to ruin his reputation in the west, but public opinion soon forced him to allow Grant to return. Finding himself stopped at Shiloh, Grant moved to capture Vicksburg. He did not stop until he had accomplished his purpose.

The reason that Western battles were so different from Eastern battles cannot be found by looking at the war as an attempt to eliminate slavery. The words of Lincoln, when he said that he would preserve the Union, with or without slavery, do give us a sound reason for that difference. To understand this we need to look closely at the nature of the people who lived in the West.

Many of these people were immigrants from Germany. Even today the largest ethnic group in Ohio is descended from German immigrants. Before 1866, Germany was divided into as many as 300 different countries, each with a border where tariffs were charged. The greatest reason for these people to emigrate to America involved not just the quality of the land which they could farm, but the ability to travel and market their products without this tariff problem. The secession of the seaboard states, (all the effective confederate states except Arkansas were seaboard states) set a precedent that would have created the very conditions these people had left behind in Europe. The

Confederate States of America was a direct and immediate threat to everything they considered important.

The Civil War then was not a war about slavery. After the war, slavery changed direction and Jim Crowe laws and sharecropping restored the status quo. Not until 1954 and the Brown versus Board of Education case was slavery and the supposed inferiority of Blacks actually addressed. The economic structure of the South changed form, but did not change substance from 1619 in Jamestown until 1954.

The Civil War then was not an idealistic war about a stupid and unproductive institution, but an economic war between two economic structures, each of which perceived a real and present danger to its way of life. The real motivation for people to fight the Civil War was not the announced motivation. The economic result of the confusion of perception with reality in this case is an attitude that exists among Southerners to this day. The perception was that the North was, without good reason, determined to destroy the South. Such a perception automatically will develop resentment that encourages retaliatory measures.

Southern anger at Northern interference in their economic system has caused ostracism of Yankees who have tried to live, as Yankees, in the South. Stories of carpetbaggers and scalawags are taught in the schools. Yankees are considered as enemies who are to be used, rather than as fellow human beings. This attitude is the direct result of the perception of Yankees as meddlers, who, without cause, would destroy other people's living. Here the manipulation of the perception needs to be changed. That change can only come slowly.

Norman control of Anglo-Saxon England changed only slowly from conqueror to compatriot. From 1066 to the time of Edward, approximately three hundred years, The Norman elite spoke only French and allowed few Anglo-Saxons to participate in any governing activity. After enough time had passed, both of these groups became English.

The Black has been a participant in American life since 1619. It would seem to be that the Blacks would have been more respected after almost four hundred years, but there is a further handicap that applies to them that did not apply to the Normans and Anglo-Saxons. Both of these groups came from an area where summer work was required to provide for winter. The Blacks came from an area where provision for the future brought difficulties rather than benefits. Until each understands that the other is not intending to cause them harm, the difficulties caused by this difference in the basis of value will continue to create difficulties for both. Both need to remember the admonition that, "One would not worry about what others think of them when they realize how seldom they do."

Real and Apparent Forces in History

The difference between the two reasons for fighting the Civil War illustrates a dichotomy of purpose that exists in the American psyche. We like to believe that we must do something about problems, even if it's wrong, and we have done some almost miraculous things right. Most governmental systems that have existed in the past require unity by developing power from a single source. England in the past has allowed London to determine all things about the country; Argentina, Buenos Aires; France, Paris. Only a few historical entities have been able to exist without central control, notably the historical "nations" of Africa, whose existence was overlaid on an underlying tolerance of differing tribes with different economic bases, and the Viking Empire, whose centers, Kiev, Novgorod, Visby, Elsenor, London and others, had an economic reason for cooperation. The United States have developed a federal system that places the effective government close to the people who are governed, and typically have determined who does what by compromise. As a result American government has come closer to a realistic and effective governmental system than any of its predecessors.

Conclusion

Before this point we were principally interested in the theories involved. Practical applications of the point of view have been only been touched on. Why should we be concerned with these theories? Because they have very practical applications, and here we start to discuss them.

This book is incomplete. To be complete, every economic structure, every complication of demand and every cultural factor in economic activity would have to be analyzed and explained. Like history, a full analysis would take more time to write than the events that are being recorded. Like history also, there must be a point of view that allows the significant ideas to be explained so that they can be acted upon.

The point of view of this book is to say that sound economic structures make sound economies. Since economic structures must have more resources than needs to exist, the assurance of threshold amounts of resources is the secret of a sound economy. Threshold amounts are the amounts of resources that make it possible for a person, family or business to continue to exist. They are not affluence. Affluence is and should be a result of contributing to the economy over and above what is required. Some means that people use to acquire those threshold amounts appear to be sinful to other people. A convict who has murdered in order to be sent to jail, where he has no reason to want for food for the rest of his life, has established an economic structure. His resources are assured and his demands are met. Unless it is to his advantage to act responsibly, he will never contribute to his economy, except as a parasite. These means of assuring the threshold amounts should be made unprofitable and others substituted.

Resources and needs are not necessarily financial. The investment a mother makes in a child may require that she support that child even when the child becomes offensive to others. Without the possibility of reinvesting in another child, the child has become her only resource. Time spent mowing a lawn is an economic transaction, even though the resource involved is time and that is exchanged for the need of a mowed lawn. No measurable activity has occurred, but economic action has taken place.

The result of this different point of view is recognition of flaws in our economic system. Prisoners in penal institutions who benefit from their incarceration will not willing change their attitudes, and actually benefit from causing problems for society. Individuals who must pay for inventory, and then pay taxes on the money that has been spent for inventory will not willingly invest in inventory and find themselves in debt. People who can avoid paying social security by moving their business across the Rio Grande will not continue to invest in domestic production.

There are a series of remedial actions that need to be taken to assure the soundness of the American economy.

Prison Reform

Prisons can be built for a number of purposes. We can punish those who have hurt us, we can eliminate competition, we can enforce our beliefs on those who differ from us, we can be sadists and attempt to hurt others, and legitimately we can attempt to prevent future threats to society by separating those who would harm it from the rest of us. Several of these reasons are counterproductive. Punishing those who have hurt us is a waste of resources, since what is done is done and cannot be undone. By providing means for one drug lord to eliminate another by turning him in is counterproductive. Beliefs are not subject to change by force. No one should be allowed to harm another, especially with official support. The only remaining purpose, to protect society from future harm remains. Activities in the realm of prison usage, then, should be consistent with that purpose.

A recent blurb in the "Dumb Crook News" describes a man who walked away from a minimum security prison with only a day left on his sentence. Instead of the "Dumb Crook News," this should have been recorded in the "Dumb Prison News. This man was facing an uncertain future without any expectation of receiving what he needed to survive. By walking away, and thereby having an additional sentence, he is secure from any need to be concerned about his future for the next four years.

If a man believed that sex was a punishment for women, a majority of women would consider him deluded. So it is with people who believe that providing whatever is needed to those whom you must lock away in order to safeguard society is punishment. They think that such "punishment" will deter prospective prisoners from activities that they have found will provide them food in profusion and all the shelter they need. No matter what the background, if the prospect of enough food and all that they consider necessary is held before the individual who has no other possible means of acquiring resources, the individual will choose the sure security of the circumstance that they can become used to, in this case prison.

For such people, incarceration must be more realistic. No matter what situation people find themselves in there is a threshold of resources that they need to exist, but any greater amount of resources should always be dependent on the contribution the individual makes to society. Such a minimum in a prison is adequate food and a place to sleep. If any prisoner wants more, even exercise, the additional demand should be subject to additional contribution from the prisoner.

Such contributions should start with cleaning and maintaining his own cell, and cooperating with the authorities. They could then proceed to more advantageous contributions, which could include working on projects that could compete with other workers.

The idea that work which provides incentive and worth to the life of a prisoner is unfair competition seems to cause people to resist this idea. Every contribution to society, however, frees someone else to contribute more. This understanding allows a different point of view toward the idea that prisoners working, while in prison, would be a benefit to society. There are many occupations that are unique to prison life, but the lack of such occupations should not prohibit finding work that prisoners could do. By requiring contributions for all privileges above the threshold amount, prison would be far less attractive to those who otherwise would look for it.

Social Security

Social Security is the factor that has stabilized American society for fifty years or more. Individuals whose ability to work is reduced are not eliminated from the economy, and their ability to act as customers assures a stable supply of customers to businesses when their disabilities would cause the economy to fail. It has some flaws, however as all successful programs do.

The first remedial action for Social Security is to require that imports into the United States pay the same taxes and abide by the same restrictions as domestic businesses. Where countries importing to the United States have equivalent taxes for similar purposes, and restrict their businesses in the same way as the United States does, unrestricted trade might exist, but a simpler method would be to apply the tariffs in the same way and to the same purpose as domestic businesses. Exports would be given credit for such taxes.

The current situation with social security is analogous to the situation in Spain immediately after the defeat of the Armada. Spaniards paid taxes on anything they manufactured, while the English were able to import into Spain and avoid these same taxes. The Spanish economy could not and never has completely recovered.

Since a person following the product cycle from initial action to usefulness will find that every part of it except rents and royalties has been considered earned income to someone, the amount to be taxed would seem to be the total value for customs purposes. To avoid a result in America that is similar to Spain, tax expenses need to be equalized.

This simple rule would avoid another scam that is costing Americans many additional income tax dollars. Juan and Jose are brothers. Juan (a fictitious name since this is an example, not a case) manufactures a product in Mexico for a dollar. If he had sold it directly into the United States he would have sold it for four dollars and would owe tax on three. However, he sells it, in Mexico, to Jose for five dollars. Jose now imports it into the United States, using the price on Juan's invoice, and sells it for four dollars. By doing this sham transaction, Juan and Jose can split the real profit, three dollars, and do not have to pay either social security or income tax. Social Security is not required in Mexico and there is a loss in the United States.

There is an additional advantage politically to including imports into the base for Social Security. The increased source for funds to pay social security benefit means that there is less required from each participant. In turn Social Security taxes can be reduced. As every reduction in Social Security rates increases the take home pay of domestic as well as imported production, the effect of a social security tax cut will be felt by every taxpayer immediately.

Changes to the Income Tax

The next series of remedial actions relates to the income tax. Willie Sutton said that he robbed banks because that was where the money was. Although taxes are intended to help fund things that people need, the same principle should apply to these taxes. Current tax thinking is based on the accounting principles that are easily available, rather than effective accounting principles that reflect the ability of the taxpayer to pay. Generally accepted accounting principles are used for good management, but are not applicable to taxes. As an example, depreciation is intended to determine whether a major move by a business, such as the purchase of a car, results from sound thinking (The purchase lasts longer than was planned), or poor planning (The purchase must be replaced before it was supposed to be.) Neither of these results has anything to do with whether there is money to pay taxes or not. Tax levies should be designed to rely on sound *tax* accounting principles, and not on *management* accounting.

An actual experience where this difference created a problem for the taxpayer occurred several years ago, when a landowner decided that he would harvest one acre of forest land each year and replant it. The operation required a truck and chain saws, which cost $3,000. Management accounting required that the equipment not be deducted until it had been used because it was required to be matched to the income that would derive from it. In any one year the income from the sale of wood from one acre of land as the landowner intended to use it would be $2,000. After the first year the owner would have spent $3,000 for equipment and received only $2,000 for his efforts. However, the tax laws would say that he had only used one-fifth of the value of the purchase, since trucks last five years. He would have had a tax income of $1,400 (2,000 minus $600). He would owe a tax at fifteen percent of $210, and a social security payment nearly equal to the same amount, a total of around $400 on money that was spent and was no longer available to be used for taxes.

Since he had no money to begin with, he had to look at other options for his land. He found that if he sold the timber, as a block, for a clear cut, he would receive $12,000 for the sale. Capital gains laws eliminated the social security tax, and his tax at fifteen percent was only $1,800, which left over $10,000 available for him to use. Tax laws have been a major cause of clear cut timbering.

Investment Relief

Investments in plant and equipment require funds when they are purchased. This is before any money is received from their use. A deduction to allow deferral of this expenditure, when funds are received would be in order. None the less, if individuals or anyone else could easily purchase equipment equal to the amount that they would otherwise have to pay tax on, they could avoid all tax. Because of this, the idea of allowing a complete deduction in advance for invested funds would be unwise. However, government, whatever else it is, is a partnership between each of the people as individuals, and all of the people, represented by the elected officials. It would seem that an allowance for half of the net taxable amount would alleviate the problem exemplified by this example. This would allow deduction of the cost of investment currently.

When the investment is sold, tax would be due on all money received except that which has not yet been deducted. The purpose of capital gains is to avoid paying tax on the "profit" from inflation. Since all deductions and receipts would be in current dollars, the need for capital gains provisions would be eliminated.

Other Tax Considerations

In order to accomplish this result, tax laws need to be changed. There are five major basic changes that need to be made in the tax laws to allow people to engage in businesses. These consist of depreciation and investment relief, discussed above, inventory relief, dividend relief, timing changes and common tax rate schedules.

Inventory Changes

Inventories must be purchased in order to begin most businesses. The requirement that management accounting be used in the valuation of inventory creates a situation where the individual, in order to begin business, must first spend the money needed for inventory and then spend money for tax on what has not been sold. It may be news to some bureaucrats that money can only be spent once.

To alleviate this problem, an adjustment to inventory item should be added to the calculation. If an inventory changes from one year to the next, the change should be an additional deduction if the inventory is increased and an additional income item if the inventory has decreased. Such an adjustment would defer tax on money which has already been spent, and include all deferred income in the year in which it disappears from the inventory.

This approach differs from cash accounting methods by insuring that fraud is not covered by the manipulation of inventory.

Dividend Changes

At one point, wages provided eighty five percent of the basis of the federal income tax. The remaining fifteen percent were made up of dividends, rent, royalties, interest, and all other sources of income. Despite this comparative unimportance well over one half of the text in the tax code was related to the matter of dividends. There was a good reason for this. Dividends are not income and it takes a lot of explaining to make them taxable under income tax laws.

When a father goes to work and provides the income for a wife and children, he transfers that income from his efforts to people who spend the money. If dividends are income, every transfer of funds from the breadwinner to any other member of the family should involve a taxable event. A corporation is designed to be a breadwinner for its stockholders. When it transfers the income to those who have a claim on it, it is not and cannot be claimed to be income.

Over half of the income tax code could be eliminated if dividends where deductible by the corporation, or if individuals received dividends tax free. Moreover, the number of foreign corporations who place themselves in other countries to avoid tax on their transfer of income would decline.

Timing Changes

April fifteenth is a dead-letter day (That is a red letter day and a deadline) with every taxpayer. Information for wage-earners that has already been sent to the IRS must now be sent again to provide a second form for people to fill out and the IRS to keep track of. CPA's and other accountants must work day and night for three months in order to fill out the forms, even though the IRS already has the money. This drastic uniformity cannot be correlated to the actual conditions of the business, or of the wages involved.

An individual who has been given a W-2, that shows the amount of earnings and taxes paid knows that the IRS has a copy of the form, and should not be required to file the same information a second time. If the amounts on the W-2 are appropriate for the income and exemptions of the individual, why should he pay good money to have the same information sent on a return? Obviously, if a W-2 was filed one year and not the next, the IRS should check with the wage-earner to see if the employer failed to file, but the tax should not require extra work on the part of the taxpayer.

A change in the deadline would be helpful as well. Taxes should be due and payable on January first and past due on December 31. Payments not made by the due date would have the highest interest rate available for each month thereafter. A small penalty should be assessed to encourage early filing when filing is necessary.

Common Tax Schedules

A man with a small child will use a "Head of Household" schedule to calculate his taxes. A married couple must use a "Married" schedule, and singles must use the "Single" schedule. By living as married (without the legality) and filing single schedule returns families can manipulate their taxes and pay less than those who abide by the laws. The situation arose because certain states required that income from married couples was to be considered as earned equally by both. All taxpayers need to be treated equally, and the privilege was expanded to all states without any analysis of the nature of the change.

The concept behind community property in the states where it is law is that the partner who is not working contributed to the success of the earning partner by supporting him or her in those things that would have reduced the earner's income. The limitation of the concept to married people was the result of a misconception that only married people acted that way. There are many other arrangements where one person supports the other by acting in the same manner as a wingman in the Air Force. One individual provides the effort to earn resources, and the other takes care of the first by providing food, and other services that would detract from the first's ability to accomplish his goals.

When we look at this analysis, we see that attaching this rule to any legality, such as marriage, fails to fulfill the purpose of the rule. The purpose can only be met if the individuals involved are allowed to file jointly if the situation exists. If there is no state law that limits certain people to using the rule, any two people should be allowed to file jointly. The head of household schedule would be allowed to file jointly, so that that schedule would not needed, and the right to chose single or joint returns to all people would allow those schedules to be based on one schedule

Deregulation

Suppose two men are barbers. Mr. A owns his shop and Mr. B must pay rent. Mr. A also has a pension, and stocks. He has no need for the revenue from his barber shop. When this happens, Mr. A can charge only ten cents for a haircut and Mr. B, in order to justify having his shop and earn a living, must charge a far larger amount. Under these circumstances, Mr. B could not exist as a barber if there were not a union, or some regulation, requiring Mr. A to charge a reasonable amount as Mr. A can set the price for a haircut as low as he wants to.

Some years ago, lawnmowers had no deadman mechanism to stop the mower when the user was not at the controls. A law was passed requiring such a mechanism in order to reduce the number of accidents with lawnmowers. A mechanic was asked if the law was not a nuisance, since it eliminated the old type of lawnmower. His response was that there would never be the new type of lawnmower without the law, since the makers could never be assured that they could recover the costs that were needed to make the deadman mechanism.

These examples illustrate the nature of the simple rule that is violated when people look out only for a lower price. ***Competition cannot exist without price regulation***. The idea that competition can exist if the supplier cannot recover his costs is ludicrous.

When the airlines were deregulated, Eastern Airlines had no monopoly at any airport. The prices for the flights on all the routes Eastern flew were set by the airline that could continue to fund the wages of the employees, the amount of gas needed, and the maintenance of the airplanes. Airlines, such as USAir in Pittsburg, who had a monopoly on certain routes, could increase their charges on flights originating at that airport, and subsidize the competitive routes. This allowed them to set their price as low as they wanted on competitive routes

The result was that the least vital of the three variable costs of an airline's flight was cut to allow the planes to remain in the air. The most spectacular result of the reduction in maintenance, in order to continue flying, was the loss of the cabin on a Hawaiian Airlines flight. The plane landed with everyone still strapped in, but they had enjoyed a flight in the open air for the first time in aviation history.

In these circumstances, Eastern Airline's income became less that its outgo. It could not fund the ordinary expenses of the flights and it failed.

Currently, the price of airline tickets is at the mercy of the airline. If they have a monopoly, as TWA at St Louis or Northwest at Minneapolis, the price of the ticket originating or ending there is far higher than a comparable ticket between competitive airports.

While exhibited in the history of England and China, as well as other historical entities, the problems associated with the concentration of wealth are not seen immediately. In England, the accumulation of wealth during the Hundred Year's War was succeeded by the anarchy of the Wars of the Roses, followed by the accumulation of wealth during the Tudor reigns; the anarchy of the Civil War, etc. This cycle covered a period of centuries. The history of China consists of the recounting of the cycle from peace to plenty to concentration to anarchy. Monopoly can and should be controlled to avoid the same result in our history. It is a long term problem. Within the lifetime of any individual the situation will appear to be stable, but over time, the cycle becomes inflexible.

We have seen one solution to the expected anarchy in the chapter on Monopoly. It is essential that the concentration of wealth not destroy the health of the sub-economies of which the national and world economies consist. Should those sub-economies prove to be unprofitable to the individuals and families that use them, they have no choice but to become enemies of the overall economy.

The Minimum Wage

By now you understand that the minimum wage is essential as a backing for our money. Twice I have illustrated that it is the only commodity that has a fixed value in money, that it is the reference point for determining the comparative value of all goods and services within the economic structure, as well as the comparative value between economic structures.

Unfortunately, as with all medicines, there are side effects. When the two barbers, Mr. A and Mr. B, have the same revenue, Mr. A has a far higher profit than Mr. B. After Mr. B has paid his rent, he must use the remaining money to pay all his expenses. Mr. A also owns his home and a restaurant, so his expenses are almost non-existent; while Mr. B must compete with Mr. A for all that he has to buy.

Urbanization

Because of the mathematical scissors, additional costs always give an advantage to the economic structure without them. In the case of the minimum wage, the costs for labor throughout a country are the same in every location. When the costs of transportation to the market are added to this, the economic entity that is not located in the market is always at a disadvantage. As time goes by, the distant enterprises continue to fail, and the effective enterprises become more and more concentrated in the urban areas. As a result, since the end of the Second World War when the minimum wage became an effective backing for the dollar, migration to the cities has resulted in five counties or cities in the United States having twenty percent of the population of the United States.

As long as the minimum wage continues to be an effective backing for the dollar, as it should be, there must be some method to allow for alleviation of the side effect. One possible method would be to allow a reasonable reduction in the minimum wage for entities that are a reasonable distance from defined markets. An example would be that a ten percent reduction of the minimum wage is allowed to enterprises located fifty or more miles from a city with a population of fifty thousand or more. Since this is also an effective commuting distance, it should allow businesses and people to relocate away from the concentrated area.

Handicapped Employment

If the same wage must be paid to all workers, as the minimum wage requires, there are individuals who are unable to accomplish what the employer can use to find the money to pay for their services. If the employer cannot find the money to pay an employee, he will terminate his employment or go broke. While he may not be able to pay for the work that an individual can do at minimum wage, he may be able to continue to employ him at a lower wage. The minimum wage should be flexible enough to allow this.

Training employment

The same situation applies when an employee is new on a job. On the job training will require a period when productivity is not enough to pay the employee the full minimum wage. The Job Partnership Training Act was designed to meet this difficulty, but employers misused the funds involved to terminate trained employees, and hire unskilled ones in businesses where training was not difficult. This mining of the plan could have been avoided if the minimum wage was flexible enough to allow employers to pay a lesser wage to new hires. By manipulating the system, some employers were able to pocket half of the new hire's wages.

One additional problem with the minimum wage is its interaction with welfare and unemployment benefits. If a laundry was able to pay minimum wage for people to man the laundry and the available benefits were larger than the minimum wage, there was no incentive to work. Talkeetna, Alaska has a shortage of motel workers during the summer season because welfare is sufficient for most of the available employees. Here the proper solution would be to increase the welfare payments for winter months and eliminate them during the tourist season. Although the total cost of the benefits involved would remain the same, the lack of payments during the time that employees are needed would encourage them to accept such employees.

Drug Enforcement

When Will Rogers commented that Baptists and bootleggers would vote dry as long as they could stagger to the polls, he was considered to have made a good joke. But good jokes have to have a basis in reality. That reality was that both Baptists and bootleggers benefited from laws prohibiting the sale of alcohol. Baptists benefited by having a clear symbol that they were cooperating with each other and that they were successful in "resisting evil." Bootleggers benefited by eliminating competition and increasing the price of their product. (Here we must remember our first digression and overlook the morality of the issue.) Bootleggers included in their resources the fact that the laws increased the resources available to them.

Food, tobacco, alcohol and drugs share a common characteristic. Demand for them is constant. All must be acquired on a regular basis. Food is a natural requirement, but the other three attain their demand by becoming addictive. This addiction can be avoided by not starting their use, but once addicted; the user finds he cannot avoid obtaining the substance except with the severe penalty of withdrawal. This penalty is far more compelling than any law.

The economic structure of the pusher is secure as long as his resources cannot be touched. One means of touching those resources is to interdict the supply of drugs, but this is inefficient. No user is going to reveal his source, since there is no likelihood of avoiding the penalty of withdrawal if his source of supply is interrupted and we have no sure way of finding out what is actually happening if those who know will not talk. Moreover, the strength of the economic structure of the pusher is such that law enforcement is more often susceptible to joining the pusher and becoming an integral part of the problem than would be believed. Often, the law enforcement departments are divided so that while one part is fighting drugs, the other is pushing them. We can only avoid the appearance that this is so if we attack the economic structure of the pusher. We cannot succeed in eliminating the problem if we only appear to be fighting the problem itself.

The first strength of the pusher's economic structure is the assurance that no user will turn in a pusher. The penalty for doing this is a real and physical sickness called withdrawal. Currently there is no offsetting benefit to the user. Even the idea that he will receive a reward is unsure, and far away. The penalty of withdrawal is immediate and frightening. Until this problem is dealt with, access to cooperation from users, who alone are in a position to know what the situation is, cannot be expected.

The idea that drugs are "evil" is a hindrance in this case. Whether drugs are evil or good is not relevant to the situation. The fact is that drugs exist and that drugs cause this situation. By accepting the reality of the situation, we can be ready to deal with the problem in a more realistic manner. If the penalty of the user is withdrawal (and withdrawal is a real and vicious punishment) that penalty must be dealt with. An addict must be allowed to continue his addiction until it can be eliminated without penalty. Until this step is taken, any attempt to eliminate drugs will lack the resources to do so.

The strength of the economic structure of the pusher is the high prices commanded by the product and the security of the user. Once we have dealt with the security of the user, by assuring him of a supply, the next step will need to be the reduction in the price of the product. If the supply of the product is made available to the user at twenty five cents per dose and the sale of any product at a price above fifty cents is made a crime, the immense fortunes that fuel the activities of the drug dealers will evaporate. The price of the product must be made into a negative resource, rather than the source of immense profit.

A third step would be to reward the individual who assists in dealing with a pusher. A user does not necessarily turn in a dealer who has, as it seems to him, been kind in making what he considers a necessity available to him. Unless he shares in the amounts confiscated, he has no real incentive to assist in removing the problem.

The waste of prison space for drug dealers is a drain on the taxes paid by every honest taxpayer. Prisons should not be used to house and feed people who can easily pay for their own needs. A far more appropriate punishment would be confiscation of their resources. If a pusher is arrested, the proper punishment should be to place all the assets of the pusher in the hands of a trustee, who would provide for the legitimate needs of the pusher from his estate. All the assets that had been accumulated from drug activity then would be confiscated by the courts, when a trial would have determined the proper amounts. All the rest would be returned to the defendant.

This approach to the problem of drug addiction would be effective

Education

Education is an economic activity that is very difficult to fund. It is a part of the start-up expenses of each person's life. As such it shares the risk factors of all venture capital. To sell a venture capital enterprise to a competent investor, the salesman has to show what is expected from the investment, what return can be expected, how realistic the expectation that the venture will succeed is, and most important, what is the purpose of the investment. Never will you find an investor willing to part with his money because the principal "needs" the money. Yet education, typically, does not evaluate the objectives, nor base the funding on the expectations from that education.

The first of these expectations is the economic problem of objective. Many educational entities are complete successes when it comes to their primary objectives. Establishing a relationship between individuals in the community is both an essential role of the schools and a usually accomplished objective. This objective is often overlooked, however, because it is usually not identified.

Other unidentified objectives include the encouragement of voluntary disciplinary efforts such as team playing in football and other sports. To a major extent, this has become a lesson in attempting to make money, but in most schools the team members are choosing to learn the necessity of cooperating with the necessary discipline with no expectation of reward. To a major extend this objective is successful.

One of the most overlooked aspects of funding of education is the relevance of what is being taught. Pupils attend school for twelve years, attend college for four, and become teachers, without once being a part of the world outside academia. For preschool and some elementary grades, this is as it should be, but a math teacher who has never bounced a check is not likely to understand and convey the importance of bank reconciliation. Schools are not producing productive citizens when they fail to understand what is required of productive citizens.

Education must be considered as an application of venture capital. Students should be required to identify a course of action by which they can succeed in life. By requiring proposals from them about this, they can develop an understanding of need for commitment toward contributing to the society of which they are a part. Schools also can orient their teaching toward assisting the student to succeed, rather than blindly teaching what is prescribed by academicians who can only be able to deal with students en mass.

Representational Changes

Earlier we deal with the idea that people who do not live in a community are unable to make informed decisions about that community. English members of Parliament had no idea that Massachusetts businessmen could not pay taxes with English pounds when they had only Spanish coins that were called illegal. They were equally ignorant of the role of tobacco as a currency in Virginia. The cry, "No taxation without representation," alluded to this problem. America has taken great steps forward in developing a solution, but there are still problems that need to be met

Every community is a living, changing group of many people. This means that problems, concerns, and interests change constantly. When people who represent a community are at work far from the community for years at a time, their ability to understand what their constituents want becomes blurred, and some things that were wanted when they started, are actually disliked later.

When Tip O'Neill was asked at his retirement whether he would return to his friends in Boston, he was quoted as saying, "I have no friends in Boston." Even if this is an apocryphal story, it illustrates the tendency of congressmen to be unfamiliar with the needs of their constituents. If Congressmen were not allowed to run for an office while they were in office, and required to physically live in the district from which they are elected a certain number of days during the period before their election to be eligible to run for the office of congressman, it would be advantageous for voters to double their salaries, and allow that to be deferred for the term they are not eligible to run.

If two eligible individuals then alternated terms, then the understanding of the community which elected them and the experience that they would develop would both be maintained and enhanced.

The second place where representation needs to be improved is in the voting in the Electoral College. Currently a candidate for president can be elected by a slim majority in only ten states. The sense of the constitution appears to be that each district would give its vote to the candidate who wins in that district. Because each district has its own needs, the Electoral College is our assurance that no one district or group of districts could eliminate the voice of other districts in enacting laws. Such a change would enhance this concept and allow better coordination on the national level.

You are asked to seriously consider these changes. Their purpose is not to deride of belittle any other ideas that might be appropriate, but to be a starting point to look at the possibility of improving our country.

Epilog

You need an introduction to the author. This book has many insights that could not have come from books, and you may have the idea that I don't know what I'm talking about when I discuss the nature of monopoly or any other of the concepts that appear in it. So, to start.

"As a disinterested outsider, Doyle, what do you think of the human race?"

When my high school pal asked me this question, I was insulted. Many years later, however, I realize that he had come close to the attitude that has permeated my life. I love people, but as they are -- not as they would like to believe they are. The difference has lead to many difficulties with people. Some have set standards that they cannot meet and do not want to believe that they are failures (insofar as meeting those standards). Others have tried to establish how great they are, and fail to understand that past actions indicate that they not as great as they would like to believe.

As a lowly specialist in the Army Assistant Chief of Staff for Intelligence's office, it was my duty to get lunch for my crew. A Brigadier General was in line next to me. When I commented that it was nice for him to get his office's lunch, since usually it was the lowest ranking member of an office who did this. His response was that he *was* the lowest ranking individual in his office. This opened my eyes to the fact that even the highest brass is part of a larger order. I have accepted brass "as they are" ever since.

I also have my severe handicap. I am intelligent. Measured by my score on the Graduate Record examination, I have been able easily to join Mensa and an even more restrictive group. This is a severe handicap because the drummer I hear beats a far faster rhythm than people near me. When I see and react to a problem that others do not see, they tend to be both fearful, and dubious about my abilities. I recognized myself in the story about the seeing man, who was ostracized by his tribe of blind people, because they could not understand him.

I have tried, in this book, to record the understanding of the human race that this handicap and attitude have given me. As a school bus driver, I learned that there are minimum requirements which, if met, will bring peace and harmony among diverse and difficult people. One of the rules for students is "One does not hit anyone else, for any reason, at any time." The other, "Every person needs to be treated as a person, no matter how young he is, or what he believes." The first eliminates fights; the second provides a reason for people to cooperate with you. Since these ideas come from the Torah, the failure of the Israelis to understand and use them in Palestine becomes even more tragic.

My disinterested attitude has been supplemented by a unique opportunity to sample many different ways that people find to work together for the good of their communities. As a result of a disastrous marriage, I have too often been in the position of being dissatisfied with the current situation, and make a move to change it. Unfortunately (and also fortunately) I did not address the problem, I addressed the symptom. As a result, I have had experience in farming, construction, retail, government service, personnel administration, hospital finance and operation, teaching, mining, motel keeping, realty and a number of other fields. A fuller list will follow. As a CPA, I have been involved in auditing major companies in twenty-two states, and tax returns for indigents. No person I have ever met has seen as much of the American economic world as it works.

My first brush with economics came as a junior in college. After taking the principles course, I asked my professor why the books didn't look at the nature of the demand cycle. Her response, that an economist has to stop somewhere and that "Your problem is…." alerted me to the fact that there was an emotional component in her answer. I wondered why and then realized that her life was invested in the theories she taught. The chapter on vesting deals with the expenditure of time and effort that established her resources in her economic structure. My question was a distinct threat to her.

This alerted me to the economic component of all activity. My subsequent exposure to the varied experiences already mentioned were colored, and understood, by my interest in economics. Currently, that has meant a forty two year economic analysis of many varied fields of endeavor.

Later, I enrolled in the doctoral program in economics at the University of Tennessee. The same attitude that my principles teacher exhibited appeared there. Academic economics is, as it should be, an introduction to a pragmatic discipline that allows the economic community to deal collectively with the practical aspects of the monetary system. This in itself is an economic method of interlocking and cooperating with the world as it is. The value of conventional economics is not to be slighted or ignored.

But there is also confusion of economics before the transaction, the motivation for the transaction, and economics after the transaction, where accounting rules could apply. This was a hindrance since every transaction, when completed, has both a source and a disposition of a specified amount. This means that the rules of accounting apply to after transaction analysis in every case. The credit (source) and debit (disposition) of the accountant means that in every transaction is counted twice, once as a source and once as a disposition. The economist who accepts reports of after transaction analyses with sources that do not equal disposition works with incomplete information.

Before-transaction economics cannot be expressed effectively in terms of specific amounts, unless demand is assumed to be constant. For purposes of most businesses, this is a leap of faith that must be taken. The academic economist is right to overlook the ramifications of demand economics. The business economist must include the needs for advertising, and means of changing demands and so must go beyond the ideas of the academic economist.

I later entered the Doctoral program in history at the University of Akron. My first brush with history occurred at the age of fourteen when I won the local award for excellence in history. Five years later as a junior in high school, I effectively ran the history course for a teacher who was assigned the subject without any experience. Later I minored in history and obtained a Master of Arts in Education degree with a specialization in history. I hold a Master of Arts in Education from Western Carolina University, and a Batchelor of Science in Business Administration, with majors in history, accounting, and general business from the University of Arizona. Degrees show the ability of the student to conform to the expected norms of the discipline in which they are issued. For this purpose, everyone needs at least a high school diploma.

This specialization included studies in Russian, Mexican, Brazilian, and Spanish History. Additionally I nave read in Turkish, Indian, Chinese, Japanese, British Commonwealth and Empire, and many other areas. The economic component of each of these was evident as I read them. When I attempted to work for a Doctorate in History, I found that this component was usually overlooked in preference to the dramatic impact of wars and fighting. These preferred studies are the effects of economic circumstances, not the core of the historical activity.

Education has also been a major part of my life. My mother and several of her siblings were teachers, my sister is a retired teacher, a son and a daughter are teachers, and I hold a Masters in Education. This exposure to education qualifies me to write about the problems that education has.

In religion, too, I have had an unusual background. Raised as the son of a Southern Baptist preacher, I was exposed to biblical analysis sufficient to become a member of the church at the age of eight. Having analyzed this book over fifty years I have found that all people are basically trying to be a part of the world they live in. During that period I have served as a deacon in the Baptist church, an elder in the Presbyterian church, a pastor-parish relations committee chairman in the Methodist church, and a vestrymen in the Episcopal Church. In addition I have studied to be a Morman and a Roman Catholic. The one consistent element in all religions is the attempt to be at peace within the world in which we live.

I have also been active in politics. Since the Republican convention that nominated General Eisenhower, I have failed to be active in party or candidate campaigns only a few times, when I was under the Hatch Act, or in service.

At one time, I was given the job of changing a hospital from a manual system of operations to a computer system. This job was accomplished with only one complaint that took only one programming step to solve. For those who are used to large memories and powerful machines this would not seem to be an accomplishment, however this application was done on a machine with only 4800 bytes of memory.

Since my first exposure to computers was in 1966, the application of computers was in its infancy. The development of computer operations had proceeded to the development of the COBOL language. COBOL is specifically defined, based upon a four part analysis. The parts are the identification of the system, the environment in which the system works, the processes involved, and the data to be used. Moreover, the system operates in three phases, the development, with its implementation, the operation, when it is used, and the removal, when the hardware is cleared so that a new application can be installed. The insights developed from this circumstance can be useful in understanding any system, even the economic systems that are discussed in this book, as well as the heredity versus environment argument of the behavioral scientists.

The background of this book is economics, flavored by history, politics, religion, business, accounting, and many other influences, written by an individual who has been able to experience these things. I have forty years experience. A boss once told me that some people claim to have forty years experience, when they mean one year's experience forty times. For the economy of the United States to work efficiently, it takes both kinds. There are not enough activities to allow everyone to act as if every year would be different, and many jobs can only be done with the specialized knowledge that comes from having done the job before. Some people who contribute to the welfare of our country have limited knowledge and abilities, yet they contribute what they can. Although I have a different background, I contribute in the ways that I can for the good of my community. This is the responsibility of all people.

It would be well in a case like this to list the different exposures that have influenced this discussion. I have had an active role in the following economic activities (among others): accounting, (cost, budget and certified) assembly line work, bookstore sales, consulting, camp counselor, carpenter, corporate controller, computer (design, installation and implementation) electrician, farm hand and farm accountant (feed lot, horse race stable, cotton, pasture cattle, truck and grain), flea market sales, forest manager, non-assembly line factory work, hardware specialty retailing, home builder (successful and unsuccessful), hospital controller, (including medicare), installation of heavy machinery, insurance sales, internal auditor (salt, yarn, wire and cable, sound systems, specialty chemicals, leather, drugs) IRS clerk, landlord, motel operations, nurseryman, painter, payroll and personnel administration (Private and Federal government), realtor, variety store management, soldier (adjutant general's office, supply, reconnaissance, mapping, aerial photography interpretation, tanks, communications, and intelligence), teaching, (college and high school level, principal subjects, accounting, computers, math), temporary employment and waiting tables.

Academically, there are significant studies in: accounting, economics, finance, banking, geography, government, history (American, colonial Brazil, modern Brazil, China and Japan, British Commonwealth and empire, India, Mexico, Russia, Spain, and Turkey), Investments, Math, and psychology.

Because I have such an extensive background, I know I can be accused of bragging. I am reminded of a famous TV line given to Walter Brennan, "No brag-just facts."

Since the sole purpose of this epilog is to establish my credentials, I will end it here.

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